CITY OF BATON ROUGE
PARISH OF EAST BATON ROUGE
DEPARTMENT OF ENVIRONMENTAL SERVICES

March 31, 2023

ADDENDUM NO. 1

TO: ALL BIDDERS

SUBJECT: **SULLIVAN ROAD (WAX-HOOPER) SEWER SANITARY SEWER IMPROVEMENTS PROJECT**

CITY-PARISH PROJECT NO. H.002320

ORIGINAL BID DATE: Wednesday, April 5th, 2023 at 2:00 PM
CURRENT BID DATE: Wednesday, April 12th, 2023 at 2:00 PM

The following revisions shall be incorporated in and take precedence over any conflicting part of the original contract document:

PART 1 – UNIFORM CONSTRUCTION BID FORMS:

1. For paper sealed bidders, with reference to page UCBF 1 of 4 of Part 1, Uniform Construction Bid Forms, the Bidder shall indicate the receipt of this addendum in the space provided. For online Central Bidding bidders, an acknowledgement of this addendum will be prompted by the electronic bidding program prior to formally submitting the bid**. Failure to indicate the receipt of this addendum shall be cause for the bid to be rejected.**

2. Acting in accordance with Louisiana Revised Statutes 38:2212, (C) (1), the bid opening date is postponed by seven (7) calendar days. **Bids will be opened at 2:00 PM Friday, April 12, 2023 in Room 806 of City Hall**, in lieu of April 12, 2023.

PART 2 – SPECIAL PROVISIONS AND CONTRACT DOCUMENTS:

1. For paper sealed bidders, with reference to page UCBF 1 of 4 of Part 1, Uniform Construction Bid Forms, the Bidder shall indicate the receipt of this addendum in the space provided. For online Central Bidding bidders, an acknowledgement of this addendum will be prompted by the electronic bidding program prior to formally submitting the bid. **Failure to indicate the receipt of this addendum shall be cause for the bid to be rejected.**

2. Acting in accordance with Louisiana Revised Statutes 38:2212, (C) (1), the bid opening date is postponed by seven (7) calendar days. **Bids will be opened at 2:00 PM Friday, April 12, 2023 in Room 806 of City Hall**, in lieu of April 12, 2023.

SPECIAL PROVISIONS

1. Section 2-8.1: Insert the following after the second sentence:

The bid forms may also be submitted electronically via the Central Bidding software as a substitute to being submitted in a separate envelope or in the sealed bid envelope.

COMMENTS & QUESTIONS:

As a point of clarification:

1. The DOTD permit acquired by the Owner has been attached to this Addendum. The allowable closure times and restrictions are as follows:
    - Contractor shall provide the Engineer a 7 calendar day notice, prior to any lane, ramp, or other roadway component closure. Contractor shall provide the Engineer a 14 day calendar notice, prior to any full closure. A late opening rental will be charged to the Contractor for any unauthorized closure or closure that extends beyond the allowed closure times.
    - Lane closures are only allowed Monday-Friday from 9 A.M. to 2 P.M., and Saturdays from 8 A.M. to 6 P.M.
    - Full roadway closures are only allowed on Weekends, from Saturday at 8 A.M. to Monday at 5 A.M.
    - When requesting a full roadway closure, Contractor shall only be allowed to install two pipe crossings per day.
    - Prior to completing asphalt patching of newly installed pipe crossing, contractor shall place an approved Type A Backfill from pipe to 2" above existing roadway and allow live traffic to compact backfill for seven calendar days; after which, contractor shall remove top 1.0' of Type A backfill and replace with approved asphalt patching material 1" higher than existing roadway.

2. Can you clarify the limits of the alternate bid vs. the base bid?

    The additive alternate consists of all the gravity sewer piping and manholes that tie into the grinder pump station system that is being installed on this project. The alternate also includes the sewer force main that discharges into SSMH A-11, and the duplex grinder pump station system. On the plans, all of the work from Station 190+77.24 to station 205+20, excluding SSMH A-11, is included in the alternate. All work beyond station 205+20 is considered the base bid.

3. All other questions received will be reviewed and addressed in a second addendum at a later date.

APPROVED:

Rickey P Brouillette

Rickey Brouillette, P.E.

Three (3) copies of the drawings must accompany the utility permit application.

When applicable, the following supplements are also required and shall become a part of this permit: Bridge Attachment, Pipe Data Sheet or Certification for Permit Lighting.

PERMIT NUMBER 61036317

CONTROL 255 **SECTION** 30

ENTERED IN COMPUTER FILE

_____
INITIAL AND DATE

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

UTILITY PERMIT

(Required by State Law) Rev 2/22

A copy of this permit shall be available at the site where and when work is performed.

Whereas East Baton Rouge Sewerage Commision (EBROSCO),
(Print or type name of applicant)

hereinafter termed applicant, requests a permit for the use and occupancy of the right-of-way of State Highway No. LA-3034 (Sullivan Rd.)

in East Baton Rouge Parish, located as follows:

from: Hooper Road .12 miles north of LA 3034 (Wax Rd.) Lat: 30.5542 Long: -91.0369

to: Wax Road .81 miles north Lat: 30.5431 Long: -91.02866

(in Decimal Degrees, e.g. Lat:-30.459, Long: -91.178)

for the installation, operation, and maintenance of the following described project (please summarize and use additional sheets as necessary):

Installation of the sanitary sewer system for City Parish Project No. H.002320. Consists of approx. 7500 linear feet of gravity main, including 4 trenched crossings of Sullivan road, as well as 650 feet of forcemain and a small pump station.

Estimated number of times this facility will be accessed each year after construction has been completed, including meter readings: 12

By signing this permit, applicant/permitee hereby acknowledges receiving a copy of the permit, the general conditions and standards, the Standards for the Installation of Pipelines on State Highways, and the Standards for the Installation of Supply and Communication Lines on State Highways, and agrees to comply with all provisions contained therein and all applicable laws, rules and regulations.

DOTD USE ONLY:

Permit is subject to the following conditions (use additional sheets as necessary):

Please see attached Permit Review Form.

RECOMMENDED FOR APPROVAL
(Check box if review required)

3/14/2023
☒ District Permit Specialist / Date

☐ District Traffic Operation Engineer / Date

☐ District Administrator (or Designee) / Date
Print Name Cedric LaCour

Applicant must notify District Permit Specialist at phone number: 225.231.4164 **prior to beginning work and after work is completed.**

Final inspection and approval by: _____

Issue Date: 3/14/2023

Installation to be completed by: 9/14/2023
(Date)

Permit must be signed by the owner or lessee of the property. Contractor may NOT acquire permit

(Signed) Rickey P Brouillette 3/9/23
(Owner) (Date)

(Printed or Typed) Rickey Brouillette
(Name of Person Signing Permit)

Chief of Engineering & Technology - Wastewater
(Title)

222 Saint Louis Street, 8th Floor Room 809
(Street or P.O. Box)

Baton Rouge LA 70802
(City or Town) (State) (Zip Code)

225-389-5623 ext 5742
(Telephone Number)

rpbrouillette@brla.gov
(E-mail Address)

DOTD APPROVAL:

John Stutes 3-15-2023
Headquarters Right-of-Way Permit Engineer / Date or
District Administrator (or Designee) / Date

Print Name Joshua Stutes

HEADQUARTERS (original) pc: DISTRICT pc: PERMITTEE

Permit Number 61036317

The following general conditions and standards shall apply:

FIRST: That, the rights and privileges granted herein shall be nonexclusive and shall not be construed to be any broader than those expressly set out in Acts of the Legislature of the State of Louisiana, regardless of the language used in this permit and that any facilities placed on the highway right-of-way shall be placed in accordance with existing laws and the standards of the Department.

SECOND: That, all facilities thereto, after having been erected, shall at all times be subject to inspection and the right is reserved to require such changes, additions, repairs, relocations and removal as may at any time be considered necessary to permit the relocation, reconstruction, widening and maintaining of the highway and to provide proper and safe protection to life and property on or adjacent to the highway, or in the interest of safety to traffic on the highway and that the cost of making such changes, additions, repairs and relocations shall be borne by the applicant, and that all of the cost of the work to be accomplished under this permit shall be borne by the permittee who agrees to hold the Department harmless therefore.

THIRD: That, the proposed facilities or their operation or their maintenance shall not unreasonably interfere with the facilities or the operation or maintenance of the facilities of other persons, firms or corporations previously issued permits of use and occupancy, and the proposed facilities shall not be dangerous to persons or property using or occupying the highway or using facilities constructed under previously granted permits of use and occupancy; and that the Department's records of prior permits are available, it being the duty of the applicant to determine the existence and location of all facilities within the highway right of way.

FOURTH: That, installations within the highway right-of-way shall be in accordance with applicable provisions contained in the following: AASHTO Guide for Accommodating Utilities within Highway Right of Way, Code of Federal Regulations 23 (CFR 23), National Electrical Safety Code C2, 1996 Federal Telecommunications Act. Those facilities not included in the above mentioned documents shall be in accordance with accepted practice. Where standards of the Department exceed those of the above cited codes, the standards of the Department shall apply. The Department reserves the right to modify its policies as may be required if conditions warrant.

FIFTH: That, data relative to the proposed location, relocation and design of fixtures or appurtenances as may be required by the Department shall be furnished to the Department by the applicant free of cost, and that the applicant shall make any and all changes or additions necessary to make the proposed facilities thereto satisfactory to the Department.

SIXTH: That, cutting and trimming of trees, shrubs, etc., shall be in accordance with the Department's EDSM IV 2.1.6 and Vegetation Manual, as revised.

SEVENTH: The applicant shall indemnify and save harmless the Department, its officers, agents, employees, contractors and assigns against any and all costs, expenses, claims, losses, liabilities, demands, suits, causes of action, damages, and judgments of any sums of money to any party accruing against the Department, its officers, agents, employees, contractors and assigns, growing out of, resulting from, or by reason of the presence or operation of the proposed facilities or any act or omission of the applicant, its officers, employees, agents, contractors and assigns while engaged in, about, or in connection with the discharge or performance of the terms of this permit or the operation, maintenance and use of the proposed facilities, whether by the applicant or third parties. Such indemnification shall include, without limitation, attorney's fees, court costs, fines, penalties, legal, consulting, accounting, engineering, and other expenses. The applicant shall provide and bear the expenses of all personal, professional, or other applicable insurance related to its ownership and operation of the proposed facilities and its duties arising under the permit.

EIGHTH: That, the applicant is the owner of the facility for which a permit is requested, and is responsible for maintenance of such: and any permit granted by the Department is granted only insofar as the Department had the power and right to grant the same.

NINTH: That, any permit granted by the Department is subject to revocation at any time.

TENTH: That, signing for warning and protection of traffic in instances where workmen, equipment or materials are in close proximity to the roadway surfacing, shall be in accordance with requirements contained in the Department's Manual on Uniform Traffic Control Devices. No vehicles, equipment and/or materials shall operate from, or be parked, stored or stock piled on any highway, median, or in an area extending from the outer edge of the shoulder of the highway on one side to the outer edge of the shoulder of the highway on the opposite side or in the median of any divided highway.

ELEVENTH: That, all provisions and standards contained herein relative to the installation of utilities shall apply to future operation, service and maintenance of utilities.

TWELFTH: That, drainage in highway side and cross ditches must be maintained at all times. The entire highway right of way affected by work under a permit must be restored to as good a condition as existed prior to beginning work to the complete satisfaction of the Department's R/W Permit Engineer.

THIRTEENTH: Any non-metallic or non-conductive underground facility must be installed with a non-corrosive metallic wire or tape placed directly over and on the center of the facility for its entire length within highway right-of-way. Wire or tape must be connected to all facilities.

FOURTEENTH: Prior to performing any excavations, the applicant is required to call Louisiana One Call. If installing any underground facilities such as cable or conduits, the applicant must be a member of Louisiana One Call. In addition, the applicant must contact DOTD at DOTD-FiberLocates@la.gov at least 24 hours prior to performing any excavation on DOTD Right-of-way (either for installation or maintenance).

Permit Number 6 1 0 3 6 3 1 7

STANDARDS FOR THE INSTALLATION OF PIPELINES ON STATE HIGHWAYS

A. GENERAL

(1) All materials and workmanship shall conform to the requirements of the applicable industry code and to Department specifications.

(2) All safety precautions for the protection of the traveling public must be observed. Undue delay to traffic will not be tolerated.

(3) All excavations within the limits of the right-of-way shall be backfilled and tamped in six inch layers to the density of the adjacent undisturbed soil. Where sod is removed or destroyed, it shall be replaced. Where it is necessary to make excavations in the shoulder, the top six inches of backfill shall be sand-clay gravel or equivalent. Where existing spoil material is, at the discretion of the Department, unsuitable for backfill, select material shall be furnished in lieu thereof and the existing material disposed of by approved methods.

(4) Protruding valves and other above ground appurtenances shall not be installed at any point within the right of way of the highway except for vents, markers, etc., which may be installed at the right-of-way line, unless specifically approved herein.

B. PARALLEL TO THE HIGHWAY (All provisions of general standards to apply.)

(1) Pipelines paralleling the highway:

(a) shall occupy the last few feet of the right-of-way back of the ditch except where upon showing of actual necessity a permit is issued for another location;

(b) shall have a minimum earth cover of twenty-four (24) inches;

(c) shall have a minimum clearance of twenty-four (24) inches below existing or proposed drainage structures, where possible.

(2) Utilities paralleling the highway are limited to distribution facilities.

C. CROSSING THE HIGHWAY (All provisions of general standards apply.)

(1) Uncased pipelines may be permitted, provided the conditions outlined in E.D.S.M. IV 2.1.9 are met.

(2) If the permittee elects to use casing, it must extend from right-of-way to right-of-way, and be properly vented and marked at or beyond the right-of-way line.

(3) For cased pipelines, the casing shall have at least four (4) feet of cover below the roadway and two (2) feet of cover below ditches or drainage structures. Uncased pipelines shall have at least five (5) feet and three (3) feet of cover respectively.

(4) Crossings shall be made at as nearly right angles to the highway as possible. No existing drainage structure under the highway may be used for this purpose.

(5) Construction methods used shall be in accordance with the following requirements:

(a) Cutting the surface or tunneling under it is specifically prohibited.

(b) Installation shall be made either by boring or jacking under and through the highway at least from ditch bottom to ditch bottom. In the absence of ditches, or along sections of highway with curb or gutter, boring or jacking shall extend beyond the outside edge of the traveled way to a point at least equal to three (3) times the vertical difference between the elevation of the roadway surfacing and the elevation of the top of the cable. Where width of right-of-way is insufficient to enable compliance with this requirement or where it is necessary to make a connection to an existing parallel facility which precludes compliance, the distance shall be to the right-of-way line or to the parallel facility. Any voids or overbreaks resulting from this shall be backfilled with grout consisting of a cement mortar or slurry of fine sand or clay, as conditions require. Excavating an open ditch to the edge of the pavement and boring and jacking the remainder of the distance is prohibited. Jacking and boring shall be done in accordance with Section 728 of the La. Standard Specifications for Roads and Bridges, latest edition.

D. REMOVAL AND ABONDONMENT OF UTILITY FACILITIES

(1) All facilities installed within state highway right-of-way shall be removed and disposed of by their owner as soon as they stop serving a useful purpose. Facilities may be abandoned under the following circumstances.

(a) Pipelines and casings crossing highways or other hard surfaces may be abandoned in place, with the recommendation of the district utility and permit specialist and the project engineer, and with the approval of the headquarters utility and permit engineer.

(b) Pipelines and casings installed along highways, may be abandoned in place, with the recommendation of the district utility and permit specialist and the project engineer, and with the approval of the headquarters utility and permit engineer, provided that they are less than 6 inches in diameter, or that they are buried with more than 8 feet or cover.

(c) Electrical and communication facilities installed within a casing, and crossing under highways or other hard surfaces may be abandoned in place with the recommendation of the district utility and permit specialist and the project engineer, and with the approval of the headquarters utility and permit engineer, provided that the cable is removed from the casing.

(d) Uncased cables crossing under highways or other hard surfaces may be abandoned in place provided that they are removed to a point as near to the edge of the highway as feasible.

(e) Electrical and communication cables installed along highways may be abandoned in place, with the recommendation of the district utility and permit specialist and the project engineer, and with the approval of the headquarters utility and permit engineer, provided that they are less than 4 inches in diameter, or that they are buried with more than 8 feet of cover.

(f) All above ground facilities installed along state highways shall be removed and disposed of by their owner as soon as they stop serving a useful purpose.

(g) Facilities that are located so that their removal would be likely to result in damage to the highway, or to other facilities, may be abandoned in place, with the recommendation of the district utility and permit specialist and the project engineer, and with the approval of the headquarters utility and permit engineer. The procedure for abandoning these facilities will be specified on a case-by-case basis; however, in general, sections shall be removed here possible, and all remaining lines shall be filled with grout.

(2) Where it is not possible nor feasible to remove pipelines and/or casings under existing highways, such pipelines and/or casings may be abandoned in place provided removals shall be accomplished by the owner, as near to the highway on each side as possible and in all cases, beyond existing ditches to right-of-way lines, and further provided that all pipelines and/or casings abandoned under the highway shall be abandoned in accordance with D.O.T. Title 49 (i.e., pipelines are purged, capped, and filled with grout; note that when highway construction will remove the line in the near future, the DOTD's project engineer may approve the use of water in place of grout).

(3) Pipelines and cables shall be removed from abandoned casings where possible.

(4) In all cases the highway right-of-way shall be repaired, at the permittee's expense, to match DOTD standards. An approved backfill material shall be used to fill in any trenches or low areas, and shall be compacted to the same density as the surrounding soil. Any desirable trees or shrubs that are damaged shall be replaced, and any other damages (i.e. to subsurface drainage, traffic signs, etc.) shall be repaired.

(5) Companies who fail to comply with this by leaving their facilities within highway right-of-way after they are no longer used, or by not repairing the right-of-way after removing their facilities, shall not receive any permits until the situation is rectified.

(6) In cases where the DOTD decides that it is necessary to remove a facility and/or to repair highway right-of-way damaged by a utility or the utility's facility, the company shall be invoiced for costs to the DOTD for removing abandoned facilities, or for repairing damaged right-of-way. Unpaid invoices shall be referred to DOTD's accounting section for further action.

(7) Note that a recommendation for abandonment by the project engineer is required only on construction projects. The district construction engineer should be consulted by the district utility and permit specialist when an abandonment may cause a potential problem with future construction. The assistant district administrator should be consulted by the district utility and permit specialist when an abandonment may cause a potential maintenance problem.

(8) The owner of the abandoned facilities shall maintain full responsibility for any future problems caused by the facilities, and shall remove the facilities upon receiving a written request from the DOTD. The cost of removing these facilities shall be borne by the owner and the DOTD shall assume no liability for this cost.

STANDARDS FOR THE INSTALLATION OF SUPPLY AND COMMUNICATION LINES ON STATE HIGHWAYS

A. All pole lines shall occupy the last few feet of the right-of-way behind the ditch but shall be no further from the right-of-way line than one-half of the width of the cross-arms plus one foot, except where upon a showing of actual necessity a permit is issued for another location.

B. A minimum vertical clearance of twenty (20) feet shall be maintained between the traveled surface of the highway and any aerial installation. In no case shall the vertical clearance for an overhead utility line be less than the clearance required by the National Electrical Safety Code. A minimum clearance of sixteen (16) feet shall be maintained between existing ground elevation and any aerial installation when such installation is within highway right-of-way but does not cross the traveled surface of a highway.

C. Where supply and/or communication lines are placed underground, the standards for pipelines shall govern. Underground electric facilities must have at least four (4) feet of cover and must be encased when crossing a highway. These facilities must also be adequately marked by appropriate signs at specified locations.

PERMIT NUMBER 61036317

CONTROL 255 SECTION 30

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
UTILITY PERMIT SUPPLEMENT
Rev 1/17

PIPE DATA SHEET

Highway No. LA-3034 Owner of Proposed Facility East Baton Rouge Sewerage Commision (EBROSCO)

Data	Carrier Pipe	Casing (If Used)
Contents to be handled	Sanitary Sewer	Carrier Pipe
Pipe Material	PVC	Carbon Steel
Specification & Grade of Pipe	ASTM D 3034	ASTM A 53, B
Outside Diameter (inches)	12.5"	24"
Dimension Ratio (DR) for Non-Metallic Pipe	SDR 26	
Nominal Pipe Size (NPS) (inches)	12"	24"
Wall Thickness(inches)	0.481"	.375"
Specified Minimum Yield Strength (SMYS) (PSI)		35000 psi
Average Temperature of Transmittant	75° F	
Hydrostatic Design Basis (HDB) (PSI) for Non-Metallic Carrier Pipe	N/A, gravity	
*^Maximum Allowable Operating Pressure (MAOP) (PSI)	N/A, gravity	
Surge Pressure Allowance (PSI) for Pipe Carrying Liquid	N/A, gravity	
^Class Location	N/A	
Type of Joint (welded, mechanical, etc.)	Bell and Spigot	Welded
Method of Installation (bore, open cut, horizontal directional drilling, etc.)	Open Cut	Open Cut
Location (crossing or parallel)	Crossing	Crossing
Crossing Angle (if crossing highway)		90°
Minimum Depth beneath roadway surface (feet)		8'
Minimum Depth beneath ditches or drainage structures (feet)		5'
Pipe Vertical Deflection by Spangler Equation (inches)		
Coating Material		Bituminous
Cathodic Protection		None

*This is not design pressure. MAOP is the highest pressure a pipeline may be operated under US DOT regulations.
^Required for all pipelines (liquid and gas) except those not regulated by US DOT (i.e. water, sewage, brine, etc.).

This proposed installation is in compliance with Louisiana Department of Transportation and Development Standards.

Richard P Bourgeois 3/10/2023

(Signature of Owner, required) (Date)

Headquarters (original) pc: District pc: Permittee

PERMIT NUMBER 6 1 03 6 3 1 7

CONTROL 255 SECTION 30

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
UTILITY PERMIT SUPPLEMENT
Rev 1/17

PIPE DATA SHEET

Highway No. LA-3034 Owner of Proposed Facility East Baton Rouge Sewerage Commission (EBROSCO)

Data	Carrier Pipe	Casing (If Used)
Contents to be handled	Sanitary Sewer	Carrier Pipe
Pipe Material	PVC	Carbon Steel
Specification & Grade of Pipe	ASTM D 3034	ASTM A 53, B
Outside Diameter (inches)	12.5"	24"
Dimension Ratio (DR) for Non-Metallic Pipe	SDR 26	
Nominal Pipe Size (NPS) (inches)	12"	24"
Wall Thickness(inches)	0.481"	.375"
Specified Minimum Yield Strength (SMYS) (PSI)		35000 psi
Average Temperature of Transmittant	75° F	
Hydrostatic Design Basis (HDB) (PSI) for Non-Metallic Carrier Pipe	N/A, gravity	
*^Maximum Allowable Operating Pressure (MAOP) (PSI)	N/A, gravity	
Surge Pressure Allowance (PSI) for Pipe Carrying Liquid	N/A, gravity	
^Class Location	N/A	
Type of Joint (welded, mechanical, etc.)	Bell and Spigot	Welded
Method of Installation (bore, open cut, horizontal directional drilling, etc.)	Open Cut	Open Cut
Location (crossing or parallel)	Crossing	Crossing
Crossing Angle (if crossing highway)		90°
Minimum Depth beneath roadway surface (feet)		5'
Minimum Depth beneath ditches or drainage structures (feet)		3'
Pipe Vertical Deflection by Spangler Equation (inches)		
Coating Material		Bituminous
Cathodic Protection		None

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This proposed installation is in compliance with Louisiana Department of Transportation and Development Standards.

Richey P Bourgeois 3/10/2023

(Signature of Owner, required) (Date)

Headquarters (original) pc: District pc: Permittee

PERMIT NUMBER 6 1 03 6 3 1 7

CONTROL 255 SECTION 30

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
UTILITY PERMIT SUPPLEMENT
Rev 1/17

PIPE DATA SHEET

Highway No. LA-3034 Owner of Proposed Facility East Baton Rouge Sewerage Commission (EBROSCO)

Data	Carrier Pipe	Casing (If Used)
Contents to be handled	Sanitary Sewer	Carrier Pipe
Pipe Material	PVC	Carbon Steel
Specification & Grade of Pipe	ASTM D 3034	ASTM A 53, B
Outside Diameter (inches)	10.5"	20"
Dimension Ratio (DR) for Non-Metallic Pipe	SDR 26	
Nominal Pipe Size (NPS) (inches)	10"	20"
Wall Thickness(inches)	0.404"	0.344"
Specified Minimum Yield Strength (SMYS) (PSI)		35000 psi
Average Temperature of Transmittant	75° F	
Hydrostatic Design Basis (HDB) (PSI) for Non-Metallic Carrier Pipe	N/A, gravity	
*^Maximum Allowable Operating Pressure (MAOP) (PSI)	N/A, gravity	
Surge Pressure Allowance (PSI) for Pipe Carrying Liquid	N/A, gravity	
^Class Location	N/A	
Type of Joint (welded, mechanical, etc.)	Bell and Spigot	Welded
Method of Installation (bore, open cut, horizontal directional drilling, etc.)	Open Cut	Open Cut
Location (crossing or parallel)	Crossing	Crossing
Crossing Angle (if crossing highway)		90°
Minimum Depth beneath roadway surface (feet)		8'
Minimum Depth beneath ditches or drainage structures (feet)		5'
Pipe Vertical Deflection by Spangler Equation (inches)		
Coating Material		Bituminous
Cathodic Protection		None

*This is not design pressure. MAOP is the highest pressure a pipeline may be operated under US DOT regulations.
^Required for all pipelines (liquid and gas) except those not regulated by US DOT (i.e. water, sewage, brine, etc.).

This proposed installation is in compliance with Louisiana Department of Transportation and Development Standards.

Richard P Bourgeois 3/10/2023

(Signature of Owner, required) (Date)

Headquarters (original) pc: District pc: Permittee

PERMIT NUMBER 6 1 0 3 6 3 1 7

CONTROL 255 SECTION 30

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
UTILITY PERMIT SUPPLEMENT
Rev 1/17

PIPE DATA SHEET

Highway No. LA-3034 Owner of Proposed Facility East Baton Rouge Sewerage Commission (EBROSCO)

Data	Carrier Pipe	Casing (If Used)
Contents to be handled	Sanitary Sewer	Carrier Pipe
Pipe Material	PVC	Carbon Steel
Specification & Grade of Pipe	ASTM D 3034	ASTM A 53, B
Outside Diameter (inches)	15.3"	30"
Dimension Ratio (DR) for Non-Metallic Pipe	SDR 26	
Nominal Pipe Size (NPS) (inches)	15"	30"
Wall Thickness(inches)	0.588"	0.469"
Specified Minimum Yield Strength (SMYS) (PSI)		35000 psi
Average Temperature of Transmittant	75° F	
Hydrostatic Design Basis (HDB) (PSI) for Non-Metallic Carrier Pipe	N/A, gravity	
*^Maximum Allowable Operating Pressure (MAOP) (PSI)	N/A, gravity	
Surge Pressure Allowance (PSI) for Pipe Carrying Liquid	N/A, gravity	
^Class Location	N/A	
Type of Joint (welded, mechanical, etc.)	Bell and Spigot	Welded
Method of Installation (bore, open cut, horizontal directional drilling, etc.)	Open Cut	Open Cut
Location (crossing or parallel)	Crossing	Crossing
Crossing Angle (if crossing highway)		90°
Minimum Depth beneath roadway surface (feet)		9'
Minimum Depth beneath ditches or drainage structures (feet)		6'
Pipe Vertical Deflection by Spangler Equation (inches)		
Coating Material		Bituminous
Cathodic Protection		None

*This is not design pressure. MAOP is the highest pressure a pipeline may be operated under US DOT regulations.
^Required for all pipelines (liquid and gas) except those not regulated by US DOT (i.e. water, sewage, brine, etc.).

This proposed installation is in compliance with Louisiana Department of Transportation and Development Standards.

Richey P Brouillette 3/10/2023

(Signature of Owner, required) (Date)

Headquarters (original) pc: District pc: Permittee

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Office of Engineering/District 61
PO Box 831 | Baton Rouge, LA 70821-0831
Phone: 225-231-4131 | fax: 225-231-4108

John Bel Edwards, Governor
Shawn D. Wilson Ph. D., Secretary

March 14, 2023

6 103 63 17

PERMIT REVIEW FORM

The permit application is recommended for approval subject to the following provisions:

- All roadway crossings shall be near 90° as possible unless a written justification letter is provided. Permit approval does not include any railroad crossings.
- In no event shall utilities or above ground structures be installed in the highway clear zone or the fore-slope of the roadside ditch.
- All above ground structures such as hydrants, vents, valves, markers, etc, must be installed at or beyond the highway right-of-way line.
- Utilities shall maintain a minimum of 10' clearance from all bridge components including abutments and piles.
- Sewer line shall be installed within the last 5' of the right-of-way, maintain a minimum depth of 5' beneath the roadway surface, and 3' below all drainage structures and ditch flow lines.
- All lines under the highway shall be abandoned in accordance with D.O.T. Title 49 (i.e., pipelines are purged, capped, and filled with a cement mortar or a fine sand or clay) from right of way to right of way. The owner of the abandoned facilities shall maintain full responsibility for any future problems caused by the facilities, and shall remove the facilities upon receiving a written request from the DOTD. The cost of removing these facilities shall be borne by the owner, and the DOTD shall assume no liability for this cost.
- In all cases, the highway right-of-way shall be repaired at the permittee's expense, to match DOTD standards.
- An approved backfill material shall be used to fill in any trenches or low areas and shall be compacted to the same density as the surrounding soil. Sod must be replaced where removed or damaged.
- Excavations within 10' of the roadway edge must be properly shored to prevent de-stabilization of the roadway base/subbase/embankment. Bore pits shall be placed at or beyond DOTD right of way.
- Excavations within the right-of-way shall be backfilled and tamped to the density of the adjacent undisturbed soil. Where sod is removed or destroyed, it must be replaced.
- Lane closure requests, limits and duration shall be submitted to the District Area Engineer with at least one week notice prior to any closures. Closures shall accommodate all vehicles especially emergency response vehicles such as EMS, fire response and law enforcement vehicles.
- All signs and barricades shall be in accordance with DOTD Temporary Traffic Control (TTC's) during construction. A copy of the TTC's are located on DOTD website.
- Work shall be conducted to assure the least possible obstruction to traffic. All safety precautions for the protection of the traveling public must be observed.
- Applicant shall be responsible for removing any materials tracked onto the roadway. Materials and equipment, not in use, will not be stored within DOTD right of way.
- Any damages to DOTD property shall be repaired as directed by the DOTD Area Engineer.
- Damages caused during construction shall be the sole responsibility of the permittee with no liability or cost to DOTD (i.e. highway, drainage structures, driveways, utilities or private/public vehicles, etc.).

6 1 03 6 3 1 7

Cedric Lacour

From: Fishburn, William <William.Fishburn@jacobs.com>
Sent: Monday, March 13, 2023 9:05 AM
To: Toby Picard; Cedric Lacour
Cc: Rickey P. Brouillette; Young, Joseph; Watts, Obie
Subject: RE: Sullivan Road Sewer Project Permit Application (City Parish Project Number H.002320)

Cedric,

As discussed last week, I have replaced the project permit with a utility permit and included pipe data sheets for each of the 4 crossings. Please let me know if you need any additional information.

https://drive.google.com/drive/folders/1WCVTiUgAOX5QtX_4TcOf6D07cTn10nfi?usp=share_link

Thanks,
Will

From: Toby Picard <Toby.Picard@LA.GOV>
Sent: Wednesday, March 8, 2023 4:33 PM
To: Fishburn, William <William.Fishburn@jacobs.com>
Cc: Rickey P. Brouillette <RPBROUILLETTE@brla.gov>; Adam M. Smith <amsmith@brla.gov>; Young, Joseph <Joseph.Young12@jacobs.com>; Watts, Obie <Obie.Watts@jacobs.com>
Subject: [EXTERNAL] RE: Sullivan Road Sewer Project Permit Application (City Parish Project Number H.002320)

Thanks Will,

We are in receipt and I've forwarded to our District Permit Specialist, Cedric Lacour, who will begin the processing.

Thanks,

Toby D. Picard, P.E.
Assistant Road Design Engineer Administrator
Office: (225) 379-1302 | Toby.Picard@la.gov

P.O. Box 94245, Rm. S-613 | 1201 Capitol Access Road
Baton Rouge, LA 70804-9245

From: Fishburn, William <William.Fishburn@jacobs.com>
Sent: Wednesday, March 08, 2023 4:18 PM
To: Desmond Sam <Desmond.Sam@LA.GOV>; John Fontenot (DOTD) <John.Fontenot2@la.gov>; Toby Picard <Toby.Picard@LA.GOV>

Cc: Rickey P. Brouillette <RPBROUILLETTE@brla.gov>; Adam M. Smith <amsmith@brla.gov>; Young, Joseph <Joseph.Young12@jacobs.com>; Watts, Obie <Obie.Watts@jacobs.com>
Subject: RE: Sullivan Road Sewer Project Permit Application (City Parish Project Number H.002320)

Gentlemen,

6 1 03 6 3 1 7

The link below contains the files for the Project Permit application for the Sullivan Road sewer project (City Parish Project Number H.002320). I've highlighted a few items in this version of the plan set that contain the additions we made to the plans based off of our last conversation. Please let me know if any additional information is needed.

https://drive.google.com/drive/folders/1WCVTiUgAOX5QtX_4TcOf6D07cTn10nfi?usp=share_link

We are set to run the first project advertisement this Friday.

Thanks,
Will

From: Fishburn, William
Sent: Wednesday, March 1, 2023 9:19 AM
To: Desmond Sam <Desmond.Sam@LA.GOV>
Cc: Adam M. Smith <amsmith@brla.gov>
Subject: Sullivan Road Sewer

Hey Desmond,

I'm working through some of the items we discussed yesterday on Sullivan road sewer. Did you have a chance to get some of the items together that you were going to send? I found in the previous spec books the language on the mowing. We will incorporate this into our specs.

105.15 MAINTENANCE DURING CONSTRUCTION.

The contractor shall satisfactorily maintain the entire area within the project, from the effective date of the Notice to Proceed until the date of final acceptance. This maintenance responsibility includes, but is not necessarily limited to, maintaining drainage, periodic mowing (not to exceed four times per calendar year) and removing of debris and remains, to the satisfaction of the engineer, as well as such striping, patching and shoulder maintenance which will provide safe and convenient conditions at all times for the public. The contractor shall continuously and effectively satisfy his maintenance responsibilities with such equipment and forces as may be necessary to maintain a safe and satisfactory condition for the duration of the project.

All adjacent and parallel roadways within the project limits which are affected by construction shall be the maintenance responsibility of the contractor.

The contractor shall maintain the roadway in a satisfactory condition to allow traffic to safely travel through the work zone at the posted speed limit at no additional cost to the Department.

I think the other items were the language regarding allowable road closure times, and the information for submitting the Right of Way permit. Looks like the ROW permits are only available to DOTD employees. Were you going to send this information over, or am I looking at the wrong type of permit?

Right-of-Way Permits (DOTD Only)

These files are only viewable by logging onto the web site.

Additional Resources

Thanks,
Will

6 10 36 3 17

Will Fishburn | Jacobs | Project Delivery
M:+1.225.810.6432 | William.fishburn@jacobs.com
100 North Street, Suite 901 | Baton Rouge, LA 70802 | USA

Plan, Progress, Deliver

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CITY OF BATON ROUGE
AND
PARISH OF EAST BATON ROUGE

61036317

EAST BATON ROUGE SEWERAGE COMMISSION
DEPARTMENT OF ENVIRONMENTAL SERVICES

PLANS OF PROPOSED

SULLIVAN ROAD (WAX-HOOPER) SANITARY SEWER IMPROVEMENTS PROJECT

CITY PARISH PROJECT NO. H.002320

INDEX TO SHEETS

SOURCE: 2023 NEARMAP IMAGERY
2/28/23
PROJECT VICINITY MAP
N.T.S.

811 Know what's below. Call before you dig.

NOTE:
THE 1997 EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CITY OF BATON ROUGE AND PARISH OF EAST BATON ROUGE, LOUISIANA, AS AMENDED BY THE PROJECT SPECIFICATIONS SHALL GOVERN ON THIS PROJECT.

T.A. ARIKOL — LICENSED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

PREPARED BY AND RECOMMENDED FOR APPROVAL _____
DATE 3-2-23 DESIGN ENGINEER

STATE OF LOUISIANA — JOSEPH OWEN YOUNG — License No. 29439 — PROFESSIONAL ENGINEER IN CIVIL ENGINEERING — 3-2-23

RECOMMENDED FOR APPROVAL _____
DATE 3-2-23 SSO PROGRAM MANAGER

RECOMMENDED FOR APPROVAL Rickey P. Broussard
DATE 3/3/2023 CHIEF OF ENGINEERING

APPROVED _____
DATE 3/3/2023 ENVIRONMENTAL SERVICES DIRECTOR

SHEET NUMBER 1
PARISH: EAST BATON ROUGE
CITY: BATON ROUGE
PROJECT: PROJECT NUM H.002320
DESIGNED: WF
CHECKED: JY
DETAILED: WF
CHECKED: JY
DATE: 2/2/2023
NO. | DATE | REVISION DESCRIPTION | BY
SULLIVAN ROAD (WAX-HOOPER) SANITARY SEWER IMPROVEMENTS PROJECT
TITLE SHEET
Jacobs

6 1036317

GENERAL NOTES:

1. THE PROJECT TEMPORARY BENCH MARKS (T.B.M.'S)/ VERTICAL AND HORIZONTAL CONTROLS ARE INDICATED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL VERIFY THE T.B.M. ELEVATIONS AND SHALL VERIFY ALL MEASUREMENTS AND GRADES PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL ESTABLISH ADDITIONAL BASELINES AND T.B.M.'S PRIOR TO DESTROYING ANY EXISTING MONUMENTS/ NAILS/ CROSS CUTS, ETC.
2. THE MAXIMUM LENGTH OF OPEN TRENCH AWAITING PIPE INSTALLATION AND BACKFILL SHALL NOT EXCEED 100 LINEAR FEET PER CREW.
3. THE CONTRACTOR SHALL BRACE ALL POLES ADJACENT TO EXCAVATION, AND BRACING SHALL REMAIN IN PLACE AFTER BACKFILLING UNTIL COMPACTION REQUIREMENTS FOR BACKFILL ARE MET. ALL WORK ADJACENT TO POLES SHALL BE COMPLETED PROMPTLY. THE CONTRACTOR SHALL BRACE/RELOCATE GUY WIRES IN CONFLICT WITH CONSTRUCTION OF FORCE MAIN.
4. THE WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE EBR DPW STANDARD DETAILS, DRAWING AND SPECIFICATIONS AS AMENDED BY THE DRAWINGS AND SPECIAL PROVISIONS OF THE PROJECT.
5. THE CONTRACTOR SHALL REQUEST PERMISSION IN WRITING FROM THE ENGINEER IF THEY WISH TO WORK ON AN EBR DPW HOLIDAY OR WEEKEND DAY. THE CONTRACTOR SHALL REQUEST AND OBTAIN PERMISSION FROM THE ENGINEER TO WORK OUTSIDE THE REGULAR WORKING HOURS OF 7:00 A.M. TO 6:00 P.M..
6. PRIOR TO FINAL ACCEPTANCE, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A COMPLETE SET OF RECORD DRAWINGS SHOWING CHANGES FROM THE ORIGINAL DRAWINGS IN ACCORDANCE WITH SECTION 5-15 OF THE SPECIAL PROVISIONS.
7. ALL TRAFFIC CONTROL SIGNS/DEVICES/PAVEMENT MARKINGS THAT HAVE BEEN MOVED, ALTERED OR DAMAGED DURING CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL POSITION, CONDITION AND ORIENTATION BY THE CONTRACTOR ONCE WORK IS COMPLETE IN THE IMMEDIATE AREA OF CONSTRUCTION. THE CONTRACTOR SHALL ACCEPT ALL LIABILITIES RESULTING FROM ALTERATION AND REMOVAL OF TRAFFIC CONTROL SIGNS/DEVICES/PAVEMENT MARKINGS.
8. THE CONTRACTOR SHALL REGRADE ALL AREAS AFFECTED BY THE CONSTRUCTION TO PROVIDE POSITIVE DRAINAGE AND PREVENT PONDING. ALL WORK SHALL BE IN A WORKMAN LIKE MANOR ACCEPTABLE TO THE ENGINEER. THE GUTTER LINE OF ROADWAYS SHALL BE ADJUSTED FOR SMOOTH FLOW OF SURFACE RUN-OFF TO THE NEAREST DRAINAGE INLET.
9. THE CONTRACTOR SHALL GIVE A MINIMUM WRITTEN NOTICE OF 24 HOURS (EXCLUDING WEEKENDS AND HOLIDAYS) TO THE ENGINEER AND THE ASSIGNED TESTING LABORATORY PRIOR TO THE POURING OF ANY CONCRETE.
10. THE CONTRACTOR SHALL MAINTAIN A SAFE DISTANCE FROM ALL ENERGIZED POWER LINES IN ACCORDANCE WITH OSHA AND NEC REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE MAXIMUM HEIGHT AND REACH ATTAINABLE BY ANY PART OF ANY PIECE OF EQUIPMENT. AFTER COORDINATING WITH THE POWER ENTITY TO DETERMINE THE HEIGHT LOCATION OF THE POWER LINE, THE CONTRACTOR SHALL DETERMINE THE SAFE CLEARANCE WHICH WILL NOT BE VIOLATED. IF THE SAFE CLEARANCE WILL BE VIOLATED PRIOR TO BEGINNING ANY OPERATIONS IN THE AREA, THE CONTRACTOR SHALL COORDINATE WITH THE ENERGY PROVIDER TO DE-ENERGIZE THE LINE, THE CONTRACTOR SHALL ESTABLISH A COORDINATION PROCEDURE WITH THE POWER ENTITY TO ENSURE THAT THE CONTRACTOR SHALL HAVE SUFFICIENT NOTICE TO ALLOW REMOVAL OF ALL EQUIPMENT WHICH MAY VIOLATE THE SAFE CLEARANCE FROM THE AREA PRIOR TO THE LINE BEING RE-ENERGIZED.
11. EXISTING FENCING AND DRIVEWAY CULVERTS CONFLICTING WITH CONSTRUCTION SHALL BE REMOVED AND REINSTALLED OR REPLACED IN KIND, SHALL BE CONSIDERED INCIDENTAL TO THE WORK, AND SHALL BE PERFORMED AT NO DIRECT PAY.
12. DURING THE COURSE OF CONSTRUCTION IT MAY BECOME NECESSARY TO TEMPORARILY REMOVE AND REPLACE MAILBOXES, NEWSPAPER DELIVERY TUBES AND MAILBOX SUPPORTS. MAILBOXES AND MAILBOX SUPPORTS SHALL ONLY BE REMOVED AND REPLACED IF IT IS ABSOLUTELY NECESSARY TO FACILITATE EXCAVATION OF TRENCHES FOR PIPES INSTALLATION AND/OR TO PROTECT EXISTING MAILBOXES AND SUPPORTS FROM DAMAGE. MAILBOXES, ALTHOUGH INSTALLED ON PUBLIC RIGHT-OF-WAY, ARE PRIVATELY OWNED. CONTRACTOR MUST COORDINATE WITH THE MAILBOX OWNER AND THE US POSTAL SERVICE TO INSURE OWNER RECEIVES MAIL DELIVERIES. CONTRACTOR SHALL NOTIFY PROPERTY OWNERS 10 DAYS IN ADVANCE IN WRITING THAT THE MAILBOXES AND MAILBOX SUPPORTS WILL BE REMOVED FOR CONSTRUCTION AND WILL BE REINSTALLED WITHIN A STIPULATED TIME-PERIOD NOT TO EXCEED 24 HOURS. REMOVAL AND REPLACEMENT OF MAILBOXES AND MAILBOX SUPPORTS SHALL BE CONSIDERED AS INCIDENTAL WORK AND SHALL BE PERFORMED AT NO DIRECT PAY.
13. ALL UNPAVED DISTURBED AREAS SHALL BE SEEDED AND FERTILIZED IN ACCORDANCE WITH THE SPECIFICATIONS. SEEDING AND FERTILIZING SHALL BE INCLUDED IN BID ITEM 9031600 STORM WATER PREVENTION PLAN.
14. LOCATION OF EXISTING UNDERGROUND UTILITIES HAS BEEN PREPARED FROM INFORMATION AVAILABLE TO THE OWNER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION, SIZE, AND DEPTH OF ALL PERTINENT UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION. ANY CONSEQUENCES OF UTILITIES NOT SHOWN OR SHOWN INCORRECTLY SHALL NOT CONSTITUTE AND EXTRA COST TO THE OWNER.
15. EXISTING UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS AS IDENTIFIES BY EACH UTILITY COMPANY AND LOCATED BY " LOUISIANA 811" DURING DESIGN. CONTRACTOR SHALL CONTACT THE RESPECTIVE UTILITY COMPANY AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION, TO VERIFY THE EXACT LOCATIONS OF ALL UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION, DEPTH, AND SIZE OF ALL UNDERGROUND UTILITIES, PIPELINES, AND STRUCTURES PRIOR TO CONSTRUCTION AND SHALL BE LIABLE FOR ANY DAMAGE CAUSED BY FAILURE TO COMPLY WITH THESE INSTRUCTIONS.
16. EXISTING CROSS DRAINS SHALL BE PROTECTED DURING INSTALLATION. ALL DRAINAGE PIPES AND/OR STRUCTURES THAT ARE DISTURBED SHALL BE PROMPTLY REPLACED WITH NEW PIPES AND/OR STRUCTURES OF THE SAME SIZE AND MATERIAL AND AT THE SAME SLOPES AND INVERTS AS WERE DISTURBED. ANY DRAINAGE PIPES AND/OR STRUCTURES THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT NO DIRECT PAY TO THE OWNER.
17. ALL STORM DRAINAGE PIPES SHALL BE SMOKE TESTED IN ACCORDANCE WITH SECTION 710 OF THE PROJECT SPECIFICATIONS.
18. POST INSTALLATION TESTS FOR SANITARY SEWER MANHOLES ARE TO BE PERFORMED IN ACCORDANCE WITH SECTION 803-5 OF THE PROJECT SPECIFICATIONS AND ASTM C1244.
19. CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL TRAFFIC DURING CONSTRUCTION AND NOT IMPEDE TRAFFIC ON ANY PUBLIC STREETS WITHOUT WRITTEN APPROVAL FROM EITHER THE LA DOTD FOR STATE HIGHWAYS OR CITY-PARISH DPW FOR OTHER PUBLIC STREETS. CONTRACTOR SHALL INSTALL AND MAINTAIN ADEQUATE CONSTRUCTION SIGNING AND BARRICADES IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. CONTRACTOR SHALL COMPLY WITH ALL REGULATIONS TO ENSURE SAFETY OF THE WORKMEN AND THE PUBLIC DURING ALL PHASES OF CONSTRUCTION.
20. THE CONTRACTOR SHALL PROVIDE TEMPORARY TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH CITY PARISH STANDARD DETAILS 905-01 THROUGH 905-11.
21. CONTRACTOR SHALL MAINTAIN UTILITY SERVICES TO ALL RESIDENTS AND BUSINESSES AFFECTED BY HIS/HER WORK AND SHALL ALSO PROVIDE ACCESS TO UTILITY COMPANIES FOR MAINTENANCE AND WORK ON THEIR UTILITIES DURING THE COURSE OF WORK AT NO ADDITIONAL COST TO THE OWNER.
22. THE CONTRACTOR SHALL PROVIDE SUPPORT OF EXISTING UTILITIES EXPOSED DURING EXCAVATION TO MAINTAIN SERVICE AND INTEGRITY OF UTILITY.
23. AT LEAST 48 HOURS PRIOR TO BEGINNING ANY CONSTRUCTION THE CONTRACTOR SHALL CONTACT LOUISIANA 811, 1-800-272-3020 AND VERIFY THE EXACT LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES. CONTRACTOR SHALL PROVIDE WRITTEN PROOF TO THE CITY/PARISH THAT THE CONTACT WAS MADE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OCCASIONED BY FAILURE TO COMPLY WITH THESE INSTRUCTIONS.
24. ANY UTILITIES THAT WILL NEED TO BE RELOCATED SHALL BE DONE SO AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL COORDINATE WITH EACH UTILITY COMPANY TO HAVE THESE UTILITIES RELOCATED.
25. WRITTEN PERMISSION FOR USE AND TO HOLD HARMLESS MUST BE OBTAINED FROM THE PROPERTY OWNERS PRIOR TO WORKING ON PRIVATE PROPERTY. COPIES OF PERMISSION MUST BE PROVIDED TO CITY/PARISH.
26. DRIVEWAYS, WALKS AND CURB OR PORTIONS THEREOF SHALL BE REPLACED WITH STONE IF REMOVED DURING CONSTRUCTION.
27. ROADWAYS, INCLUDING BUT NOT LIMITED TO THE FOUR CROSSINGS OF SULLIVAN ROAD, SHALL BE REPLACED WITH A 12" THICK ASPHALT PATCH OVER A STONE BASE IF REMOVED DURING CONSTRUCTION.
28. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES DURING CONSTRUCTION.
29. THE CONTRACTOR SHALL SATISFACTORY MAINTAIN THE ENTIRE AREA WITHIN THE PROJECT, FROM THE EFFECTIVE DATE OF THE NOTICE TO PROCEED UNTIL THE DATE OF FINAL ACCEPTANCE. THIS MAINTENANCE RESPONSIBILITY INCLUDES, BUT IS NOT LIMITED TO, MAINTAINING DRAINAGE, PERIODIC MOWING (NOT TO EXCEED FOUR TIMES PER CALENDAR YEAR) AND REMOVING OF DEBRIS AND REMAINS, TO THE SATISFACTION OF THE ENGINEER, AS WELL AS SUCH STRIPING, PATCHING AND SHOULDER MAINTENANCE WHICH WILL PROVIDE SAFE AND CONVENIENT CONDITIONS AT ALL TIMES FOR THE PUBLIC. THE CONTRACTOR SHALL CONTINUOUSLY AND EFFECTIVELY SATISFY HIS MAINTENANCE RESPONSIBILITIES WITH SUCH EQUIPMENT AND FORCES AS MAY BE NECESSARY TO MAINTAIN A SAFE AND SATISFACTORY CONDITION FOR THE DURATION OF THE PROJECT.
30. ALL ADJACENT AND PARALLEL ROADWAYS WITHIN THE PROJECT LIMITS WHICH ARE AFFECTED BY CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
31. THE CONTRACTOR SHALL MAINTAIN THE ROADWAY IN A SATISFACTORY CONDITION TO ALLOW TRAFFIC TO SAFELY TRAVEL THROUGH THE WORK ZONE AT THE POSTED SPEED LIMIT AT NO ADDITIONAL COST TO THE OWNER.
32. THE CONTRACTOR SHALL NEATLY SAW CUT (FULL DEPTH) ALL ROADWAYS AND DRIVEWAYS FOR REMOVAL AND RESTORATION OF PAVEMENT. A NEAT EDGE OF PAVEMENT IS REQUIRED PRIOR TO PERMANENT PAVEMENT REPAIR. IF NOT CONTRACTOR SHALL PERFORM A NEW SAW CUT AT NO ADDITIONAL COST TO THE OWNER. DURING THE TIME BETWEEN THE FINAL BACKFILL OF PIPE INSTALLATION AND COMPLETION OF THE PERMANENT PAVEMENT REPAIR, THE CONTRACTOR SHALL MAINTAIN TRAFFIC IN ACCORDANCE WITH THE SPECIFICATIONS. IN ADDITION, THE CONTRACTOR SHALL TEMPORARILY FURNISH, PLACE, SHAPE, COMPACT, AND MAINTAIN TRAFFIC MAINTENANCE AGGREGATE UNTIL THE PERMANENT PAVEMENT REPAID IS COMPLETE. OTHERWISE, CONTRACTOR MAY COMPLETE SURFACE RESTORATION, REMEDIAL OR FOLLOW-UP WORK IMMEDIATELY AFTER COMPLETION OF THE REPAIR AND FINAL BACKFILL.
33. CONTRACTOR SHALL HAVE A CONFORMED SET OF PLANS AND SPECIFICATIONS ON THE JOB SITE AT ALL TIMES.
34. ALL WORK SHALL BE PERFORMED BY A LOUISIANA LICENSED CONTRACTOR.
35. INDICATED SCALES ARE BASED ON FULL SIZED (24" X 36") DRAWINGS. IF THE DRAWINGS ARE REDUCED OR INCREASED, SCALES MUST BE ADJUSTED ACCORDINGLY.
36. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PROJECT SITE RESULTING FORM THE CONTRACTOR'S CONSTRUCTION ACTIVITIES.
37. CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR WORKING CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. DURING PERFORMANCE OF WORK THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
38. A COPY OF ALL RELATIVE REFERENCE MAPS FOR THIS PROJECT MAY BE AVAILABLE AT THE DEPARTMENT OF PUBLIC WORKS FOR THE CONTRACTOR'S REVIEW.
39. CONTRACTOR SHALL CAREFULLY POTHOLE AND EXPOSE SELECTED SUBSURFACE UTILITIES TO OBTAIN THREE-DIMENSIONAL INFORMATION. NO CONTRACT TIME WILL BE ADDED FOR ANY CONTRACTOR DOWNTIME WHILE WAITING TO COORDINATE THE POTHOLING OPERATION WITH A GIVEN UTILITY COMPANY. IF A CONFLICT IS VERIFIED THAT WOULD PREVENT THE CONTRACTOR FROM PERFORMING THE WORK, HE IS TO CONTACT THE PROJECT ENGINEER IMMEDIATELY AND FOLLOW THE CONFLICT LOG PROCESS.
40. THE CONTRACTOR SHALL VERIFY THE ALIGNMENT, ELEVATIONS, LENGTHS AND GRADES OF ALL PROPOSED IMPROVEMENTS INCLUDING THE PIPE RESTRAINT LENGTHS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES AND/OR CONFLICTS THAT ARE DISCOVERED SHALL BE REPORTED TO THE ENGINEER FAR ENOUGH IN ADVANCE TO MAKE ANY REQUIRED ADJUSTMENTS TO THE DESIGN
41. ALL EXCAVATIONS GREATER THAN 4' IN DEPTH WILL REQUIRE TEMPORARY SHORING BY THE CONTRACTOR IN ACCORDANCE WITH OSHA REGULATIONS. SUCH SHORING WILL BE AT NO ADDITIONAL COST TO THE OWNER.
42. ACTUAL INVERT ELEVATIONS OF EXISTING SEWER LINES, MANHOLES, AND DRAINAGE CULVERTS SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD PRIOR TO ORDERING MATERIALS AND STARTING CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
43. ALL PROPOSED MANHOLE TOP ELEVATIONS SHALL BE FLUSH WITH NATURAL GROUND.
44. CONTRACTOR SHALL PROVIDE ALL DEWATERING EQUIPMENT NECESSARY TO KEEP EXCAVATIONS DRY AND SHALL PROVIDE ALL SHEETING, SHORING, AND BRACING NEEDED TO PROTECT ADJACENT STRUCTURES, UTILITIES, OR TO MINIMIZE TRENCH WIDTH AND NO DIRECT PAY.
45. UTILITIES:

    THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM LOUISIANA 811 OR VISIBLE UTILITY FEATURES. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES, EXCEPT FOR ABOVE GROUND VISIBLE UTILITY FEATURES.

    UTILITY COMPANIES TO BE CONTACTED BY LOUISIANA ONE CALL:
    BATON ROUGE WATER - (225) 952-7688
    COX COMMUNICATIONS - (800) 234-3993
    EBR CITY PARISH SEWER - (225) 389-5378
    AT&T - (210) 821-4105
    EXXON MOBILE - (225) 755-0110
    ENTERGY - (800) 368-3749

STATE OF LOUISIANA
JOSEPH OWEN YOUNG
License No. 29439
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
3-2-23

SHEET NUMBER 2

PARISH: EAST BATON ROUGE
CITY: BATON ROUGE
PROJECT: PROJECT NUM H.002320

DESIGNED WF
CHECKED JY
DETAILED WF
CHECKED JY
DATE 2/2023

NO	DATE	REVISION DESCRIPTION	BY
-	-	-	-

SULLIVAN ROAD (WAX-HOOPER) SANITARY SEWER IMPROVEMENTS PROJECT

GENERAL NOTES

Jacobs

61036317

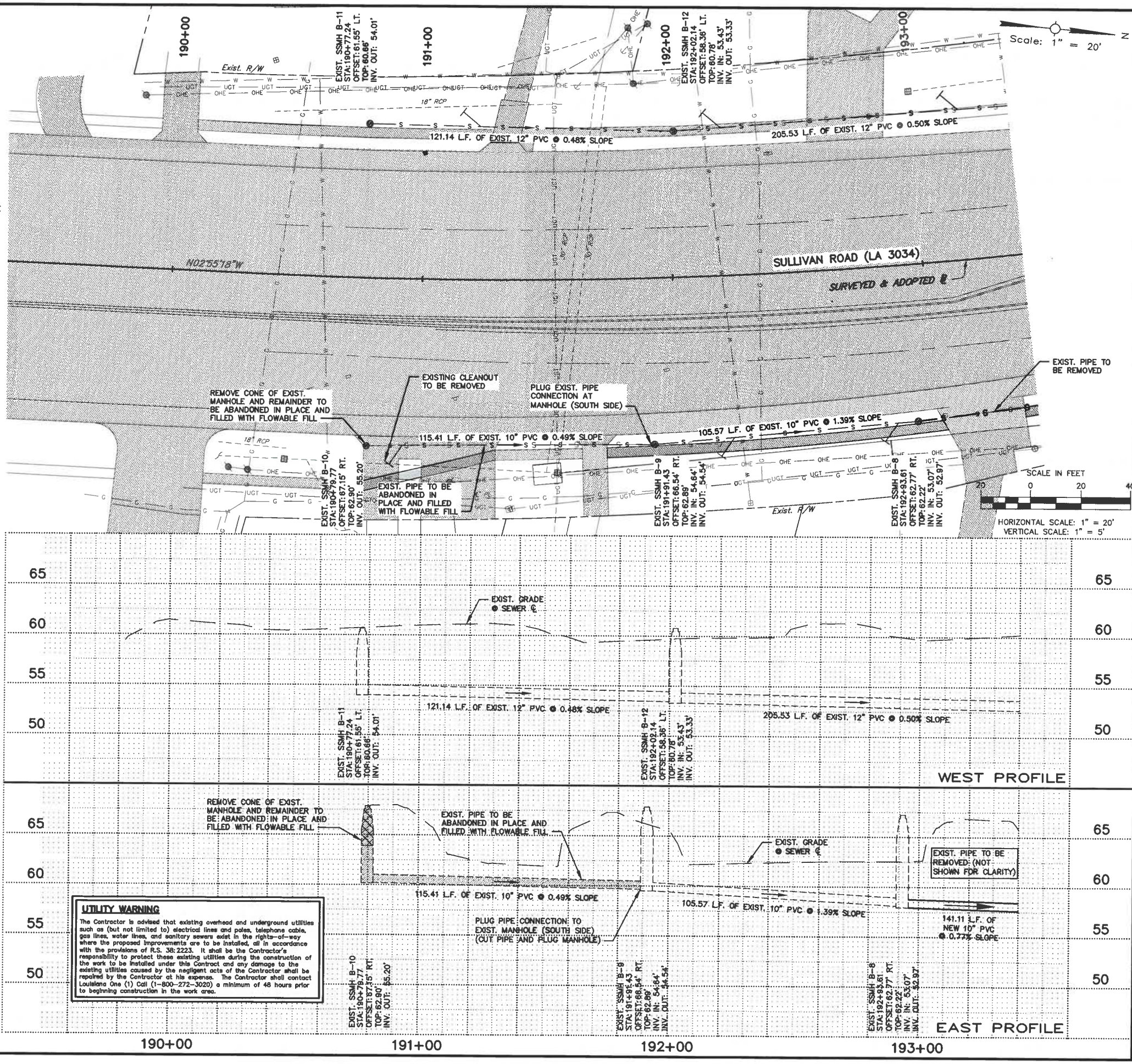
10/10/2022 4:29 PM

100% FINAL PLANS

G:\11638\PLANS\57 PLAN & PROFILE - SEWER.DWG

GENERAL NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT SANITARY SEWERS AT LEAST 6 LINEAR FEET HORIZONTALLY FROM ANY EXISTING WATER MAIN. SANITARY SEWERS CROSSING WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE WATER MAIN AND THE SEWER. THIS SHALL BE THE CASE WHERE THE WATER MAIN IS EITHER ABOVE OR BELOW THE SEWER. THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO MAINTAIN LINE AND GRADE. THE DISTANCE BETWEEN WATER MAIN AND SEWER SHALL BE MEASURED FROM THE OUTSIDE OF THE WATER MAIN TO THE OUTSIDE OF THE SEWER PIPE.
2. CONTRACTOR TO COORDINATE WITH THE CITY OF CENTRAL AND THE CITY/PARISH THE LOCATION OF CLEANOUTS IN THE RIGHT OF WAY.
3. EXISTING UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS AND THE CONTRACTOR SHALL LOCATE THEM IN THE FIELD AT NO ADDITIONAL COST TO THE OWNER.
4. UTILITY RELOCATION IS BY OTHERS.
5. CONTRACTOR IS ADVISED THAT SEWER "TAIL LINES" CURRENTLY EXIST ALONG THE PROJECT. THESE LINES MUST BE ALLOWED TO FLOW FREELY UNTIL THEY ARE CONNECTED INTO THE FULLY OPERATIONAL SEWER SYSTEM. (I.E. WHEN PUMP STATION IS CONNECTED TO EBR SYSTEM.) COLLECTION SYSTEM AND PUMP STATION CONSTRUCTION SHALL BE APPROVED AND ACCEPTED BY LDOTD AND CITY PARISH. PUMP STATION STARTUP TO BE COORDINATED WITH DARREN BRAUD OF CITY PARISH. PHONE: 225-389-5623 ext. 5715; DPBraud@brla.gov. CONTRACTOR TO CONNECT NEW 6" SERVICE LINES TO EXISTING SERVICE EFFLUENT TAIL LINES. NEW SERVICE LINE LOCATIONS AS SHOWN IN THE DRAWINGS ARE APPROXIMATE, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY LOCATION OF EXISTING EFFLUENT TAIL LINES PRIOR TO GRAVITY MAIN INSTALLATION.
6. PROFILE STATIONING FOLLOWS THE PROJECTED AND ADOPTED ROADWAY CENTERLINE ALIGNMENT. PIPES SHOWN IN PROFILE CANNOT BE SCALED. REFER TO CALL-OUTS FOR ACTUAL LENGTH ONLY.
7. THE CONTRACTOR SHALL COORDINATE THE BRACING OF ALL POLES ADJACENT TO EXCAVATION WITH THE UTILITY OWNER, AND BRACING SHALL REMAIN IN PLACE AFTER BACKFILLING UNTIL COMPACTION REQUIREMENTS FOR BACKFILL ARE MET. ALL WORK ADJACENT TO POLES SHALL BE COMPLETED PROMPTLY.
8. EXISTING GROUND AND PROPOSED GROUND PROFILES MAY NOT REFLECT ACTUAL EXISTING OR FINISHED ELEVATIONS AFTER CONSTRUCTION. PROFILES ARE PROVIDED FOR GENERAL INFORMATION PURPOSES ONLY.
9. ALL PIPING AND MANHOLES SHALL BE TESTED IN ACCORDANCE WITH CITY-PARISH SPECIFICATIONS.
10. ROADWAY CROSSINGS WITH STEEL CASING AND SEWER PIPE SHALL BE INSTALLED VIA THE OPEN CUT METHOD. CONTRACTOR SHALL PRODUCE A TRAFFIC CONTROL PLAN FOR APPROVAL BY LADOTD. CASING PIPE SHALL BE BEDDED IN ACCORDANCE WITH THE SAME SIZE GRAVITY SEWER LINE (UNDER PAVEMENT) DETAILS. GRAVITY PIPES INSIDE CASING SHALL BE RESTRAINED JOINT (CERTALOCK OR EQUAL), CASING SPACERS SHALL BE ALSO INCLUDED IN THE PAY ITEM.
11. PIPE SHALL BEAR IDENTIFICATION MARKINGS THAT WILL REMAIN LEGIBLE AFTER NORMAL HANDLING, STORAGE, AND INSTALLATION. MARKINGS SHALL BE APPLIED IN A MANNER THAT WILL NOT WEAKEN OR DAMAGE THE PIPE. MARKING ON THE PIPE SHALL INCLUDE THE FOLLOWING: NOMINAL SIZE AND OD, MATERIAL, SDR, PRESSURE RATING, AWWA DESIGNATION, MANUFACTURERS NAME, "SEWER", AND PRODUCTION CODE.
12. EXISTING MANHOLES TO BE ABANDONED SHALL HAVE TOP CONE REMOVED AND BE FILLED WITH FLOWABLE FILL.
13. NEW (OR RE-USED) MANHOLES SHALL BE CONSTRUCTED (AND/OR ADJUSTED) FLUSH WITH THE FINAL GRADES.
14. THE CONTRACTOR SHALL USE AN EXPERIENCED DEWATERING SPECIALTY CONTRACTOR FOR THIS PROJECT. NO SELF PERFORMING OF DEWATERING WILL BE ALLOWED. REFER TO GEOTECHNICAL REPORT AND SECTION 801-6. THE CONTRACTOR SHALL SUBMIT A DEWATERING PLAN FOR REVIEW AND APPROVAL PRIOR TO BEGINNING ANY EXCAVATIONS. ALL COSTS FOR DEWATERING SHALL BE BY LINEAR FOOT AT THE VARIOUS DEPTHS. THE CONTRACTOR SHALL INSTALL PIEZOMETERS ALONG THE EXCAVATION CENTERLINE TO MONITOR THE GROUNDWATER LEVELS BEFORE EXCAVATION BEGINS. EXCAVATIONS SHALL NOT BE ALLOWED UNTIL THE CONTRACTOR CAN SHOW THAT THE GROUNDWATER TABLE IS STABLE AT LEAST TWO FEET BELOW THE EXCAVATION.
15. THE CONTRACTOR SHALL MONITOR AND AVOID ANY SETTLEMENT OF ADJACENT STRUCTURES. TWO STRUCTURES ARE PARTICULARLY CLOSE TO THE PIPELINE THE OCHSNER BUILDING (APPROXIMATELY 27 FEET AWAY) AND 11248 SULLIVAN (HOUSE APPROXIMATELY 18 FEET AWAY).
16. LINEAR FEET OF SEWER PIPE AT THE VARIOUS DEPTHS AND SIZES IS TO BE MEASURED AND PAID FOR FROM THE ORIGINAL GRADE. MANHOLES SHALL BE MEASURED FROM THE FINAL GRADE OR ORIGINAL GRADE WHICHEVER IS DEEPEST.
17. ABANDONED SERVICE LINES, SERVICE STACKS, AND MANHOLES SHALL ALL BE CUT OFF A MINIMUM OF THREE FEET BELOW GRADE AND FILLED WITH FLOWABLE FILL (CAN JUST REMOVE TOP CONE OF MANHOLES).
18. WHENEVER MANHOLES ARE TO BE REUSED AT A SHALLOWER DEPTH, CONTRACTOR WILL NEED TO PERFORM TESTS AND REPAIR AS NECESSARY TO PASS ALL TESTS. (NO DIRECT PAY). THIS ALSO APPLIES TO SERVICE STACKS. EXISTING MANHOLES WILL REQUIRE CORING AT NEW ELEVATIONS FOR NEW PIPES.
19. WHEN ADJUSTING MANHOLE TOPS TO FINAL ELEVATION IN ROADWAY FORESLOPE, GRADE TO INSURE ANY DRAINAGE "SHEET FLOW" DOES NOT GO OVER MANHOLE TOPS.
20. PIEZOMETER INSTALLATION AND GROUNDWATER MEASUREMENT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR SEWER PIPE AT VARIOUS DEPTHS. THE LINEAR FOOT DEWATERING ITEM ONLY APPLIES IF MECHANICAL DEWATERING IS IMPLEMENTED AT THAT LOCATION.
21. ALL PIPE SHALL BE PROTECTED FROM U.V. DEGRADATION AND DISCOLORATION.



UTILITY WARNING

The Contractor is advised that existing overhead and underground utilities such as (but not limited to) electrical lines and poles, telephone cable, gas lines, water lines, and sanitary sewers exist in the rights-of-way where the proposed improvements are to be installed, all in accordance with the provisions of R.S. 38:2223. It shall be the Contractor's responsibility to protect these existing utilities during the construction of the work to be installed under this Contract and any damage to the existing utilities caused by the negligent acts of the Contractor shall be repaired by the Contractor at his expense. The Contractor shall contact Louisiana One (1) Call (1-800-272-3020) a minimum of 48 hours prior to beginning construction in the work area.

SHEET NUMBER 57

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	255-30, 255-02	H.002320

DESIGN	CHECK	DETAIL	CHECK	REVIEW	SERIES #
T. ARIKOL	D. COLSON	T. BANKER	T. ARIKOL	T. ARIKOL	

STATE OF LOUISIANA
T.A. ARIKOL
REG. No. 23244
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

PEC

PLAN & PROFILE - SEWER

SULLIVAN RD (WAX - HOOPER)

Secondary backfill for open cut crossing shall be #610 stone with a 12" thick asphalt patch on top as per Note 27, Sheet 2

DESIGN	T. ARIKOL	PARISH	EAST BATON ROUGE
CHECK	D. COLSON		
DETAIL	T. BANKER	CONTROL SECTION	255-30, 255-02
CHECK	T. ARIKOL		
REVIEW	T. ARIKOL	STATE PROJECT	H.002320
SERIES #			

SHEET NUMBER 58

PLAN & PROFILE - SEWER

SULLIVAN RD (WAX - HOOPER)

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100% FINAL PLANS

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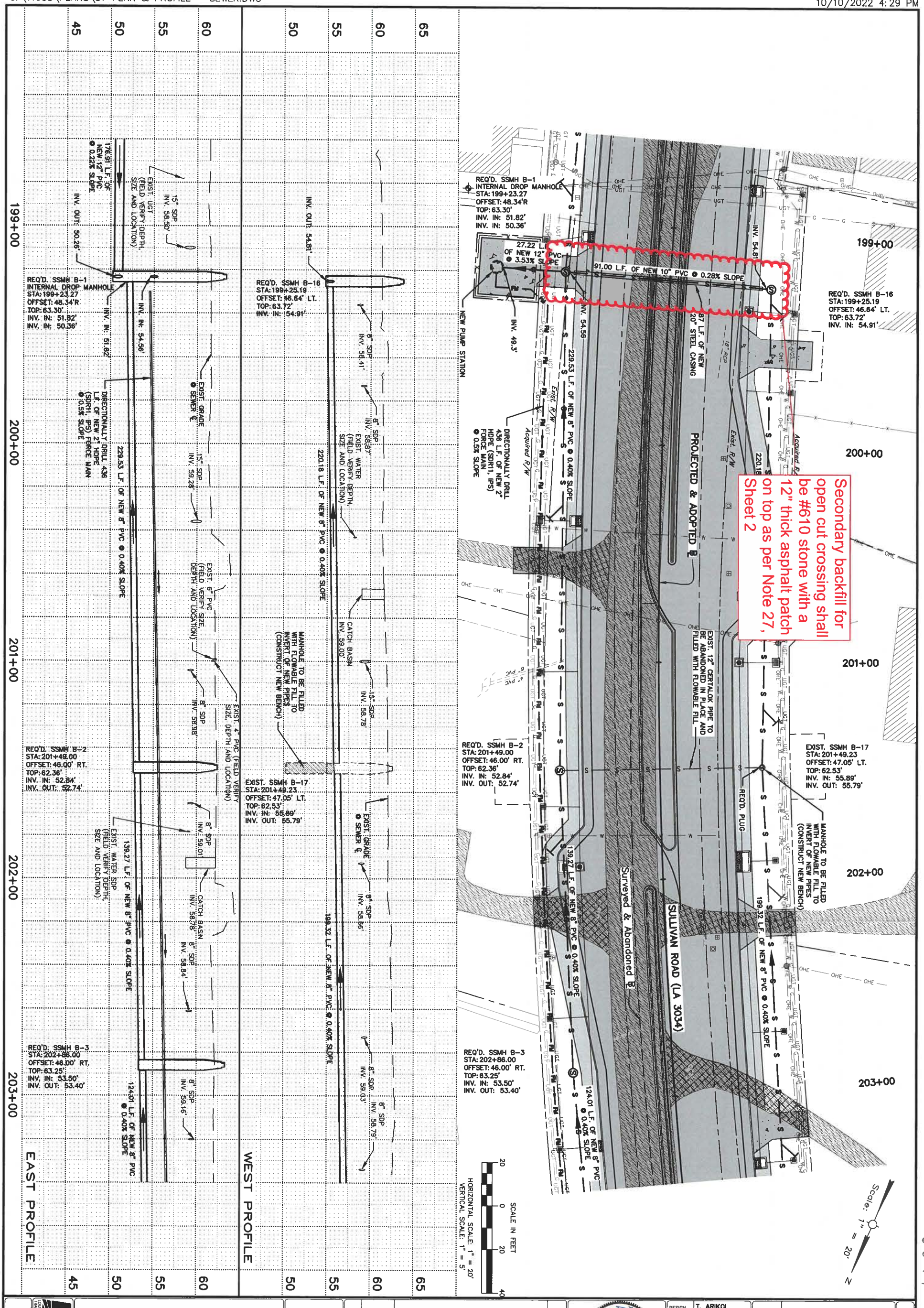


PLAN & PROFILE - SEWER

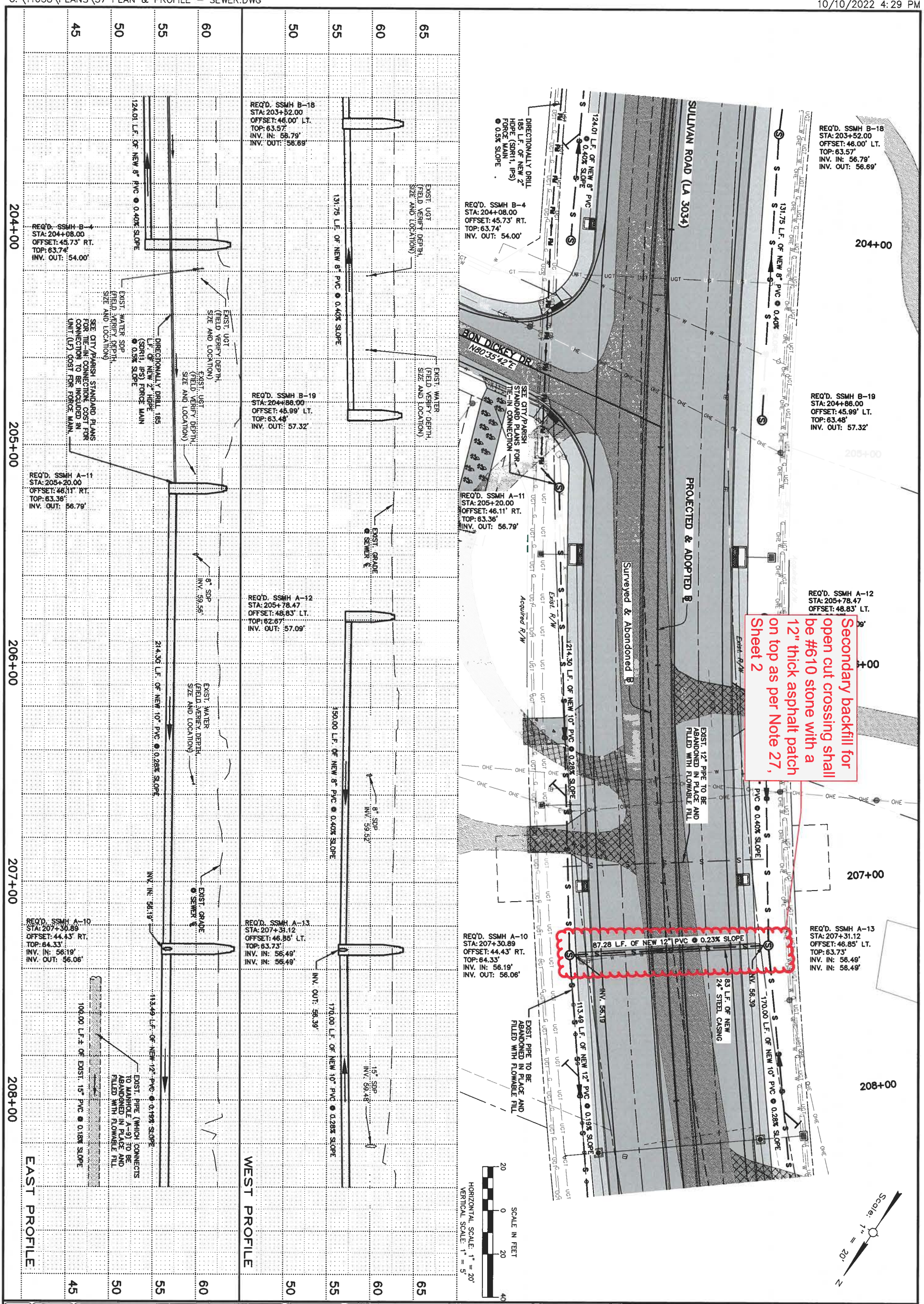
SULLIVAN RD (WAX - HOOPER)

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

DESIGN	T. ARIKOL	PARISH	EAST BATON ROUGE	SHEET NUMBER 59
CHECK	D. COLSON			
DETAIL	T. BANKER	CONTROL SECTION	255-30, 255-02	
CHECK	T. ARIKOL			
REVIEW	T. ARIKOL	STATE PROJECT	H.002320	
SERIES #				

STATE OF LOUISIANA — T. K. ARIKOL — REG. NO. 32744 — PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

61036317



DESIGN	T. ARIKOL	PARISH	EAST BATON ROUGE
CHECK	D. COLSON		
DETAIL	T. BANKER	CONTROL SECTION	255-30, 255-02
CHECK	T. ARIKOL		
REVIEW	T. ARIKOL	STATE PROJECT	H.002320
SERIES #			

SHEET NUMBER 60

DOTD — LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

PEC

PLAN & PROFILE - SEWER

SULLIVAN RD (WAX - HOOPER)

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

6103617

100% FINAL PLANS

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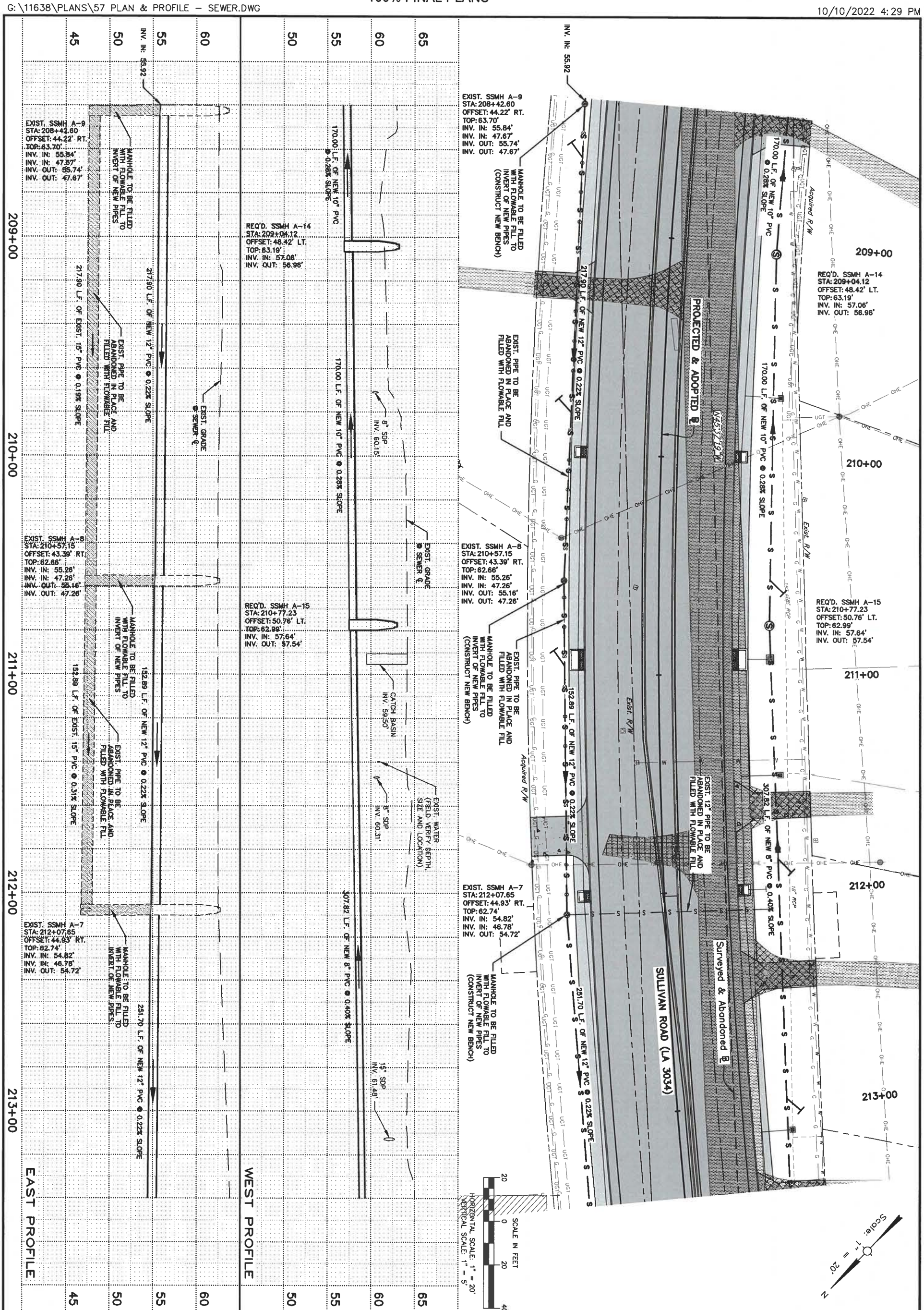

PLAN & PROFILE - SEWER

SULLIVAN RD (WAX - HOOPER)

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

DESIGN	T. ARIKOL
CHECK	D. COLSON
DETAIL	T. BANKER
CHECK	T. ARIKOL
REVIEW	T. ARIKOL
SERIES #	

PARISH	EAST BATON ROUGE
CONTROL SECTION	255-30, 255-02
STATE PROJECT	H.002320
SHEET NUMBER	61

STATE OF LOUISIANA — T. A. ARIKOL — REG. NO. 37244 — PROFESSIONAL ENGINEER IN CIVIL ENGINEERING — 9/1/2022

DOTD — LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

PEC

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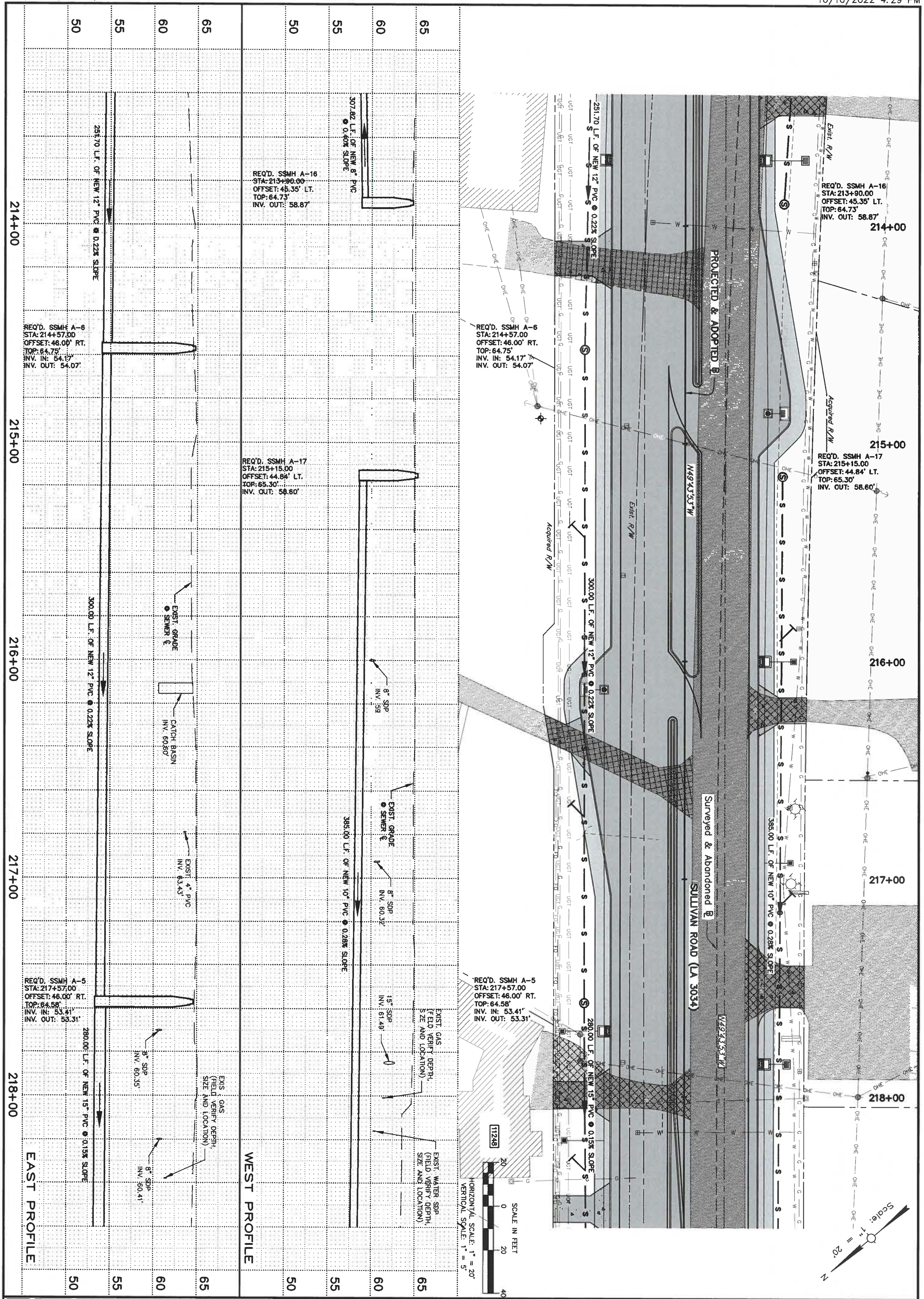

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PLAN & PROFILE - SEWER

SULLIVAN RD (WAX - HOOPER)

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT — DOTD

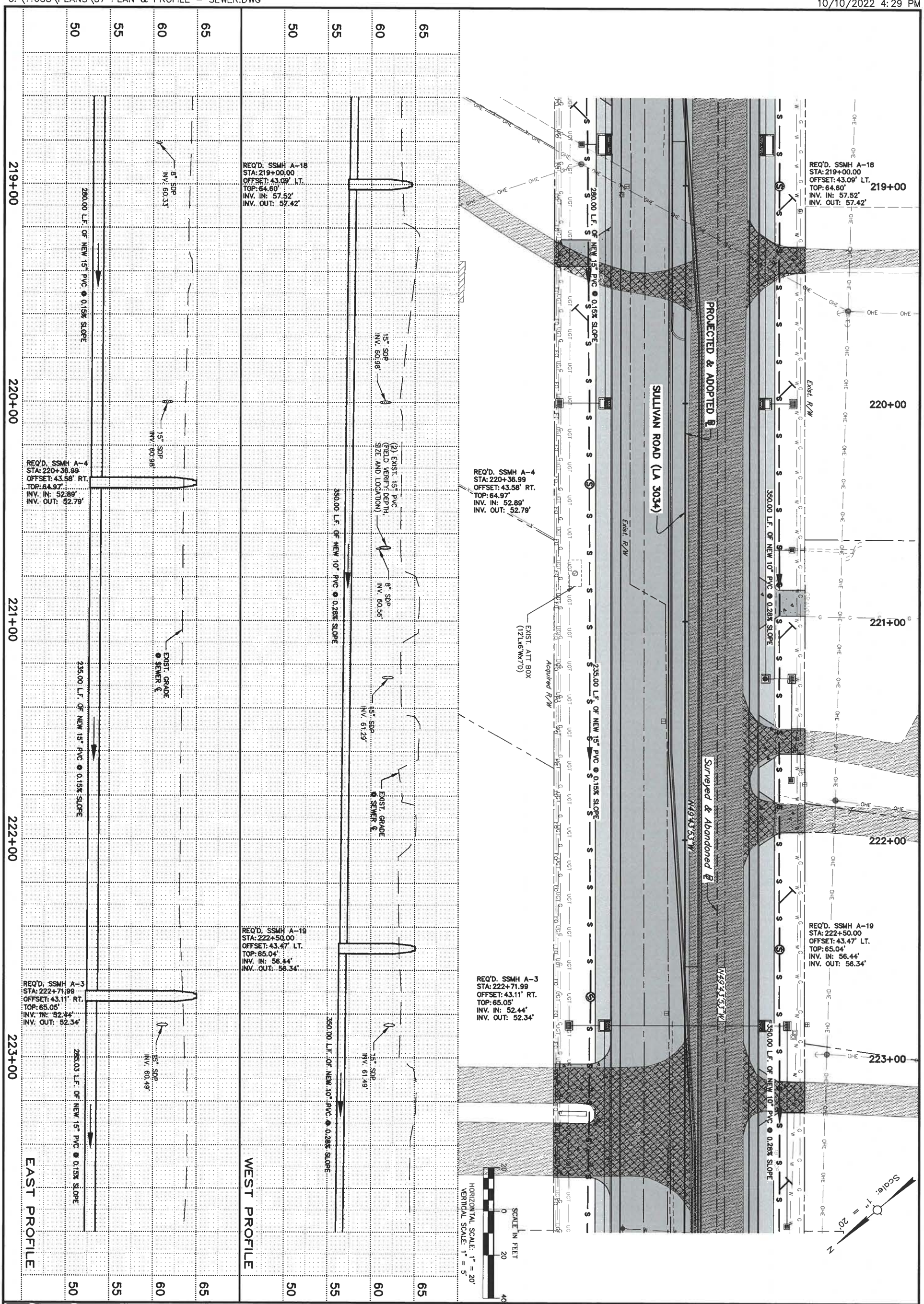
PEC

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

DESIGN	T. ARIKOL
CHECK	D. COLSON
DETAIL	T. BANKER
CHECK	T. ARIKOL
REVIEW	T. ARIKOL
SERIES #	

PARISH	EAST BATON ROUGE
CONTROL SECTION	255-30, 255-02
STATE PROJECT	H.002320

SHEET NUMBER 62



PLAN & PROFILE - SEWER

SULLIVAN RD (WAX - HOOPER)

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

DESIGN	T. ARIKOL
CHECK	D. COLSON
DETAIL	T. BANKER
CHECK	T. ARIKOL
REVIEW	T. ARIKOL
SERIES #	

PARISH	EAST BATON ROUGE
CONTROL SECTION	255-30, 255-02
STATE PROJECT	H.002320
SHEET NUMBER	63

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Secondary backfill for open cut crossing shall be #610 stone with a 12" thick asphalt patch on top as per Note 27, Sheet 2

PLAN & PROFILE - SEWER

SULLIVAN RD (WAX - HOOPER)

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

DESIGN	T. ARIKOL	PARISH	EAST BATON ROUGE
CHECK	D. COLSON		
DETAIL	T. BANKER	CONTROL SECTION	255-30, 255-02
CHECK	T. ARIKOL		
REVIEW	T. ARIKOL	STATE PROJECT	H.002320
SERIES #			

SHEET NUMBER 64

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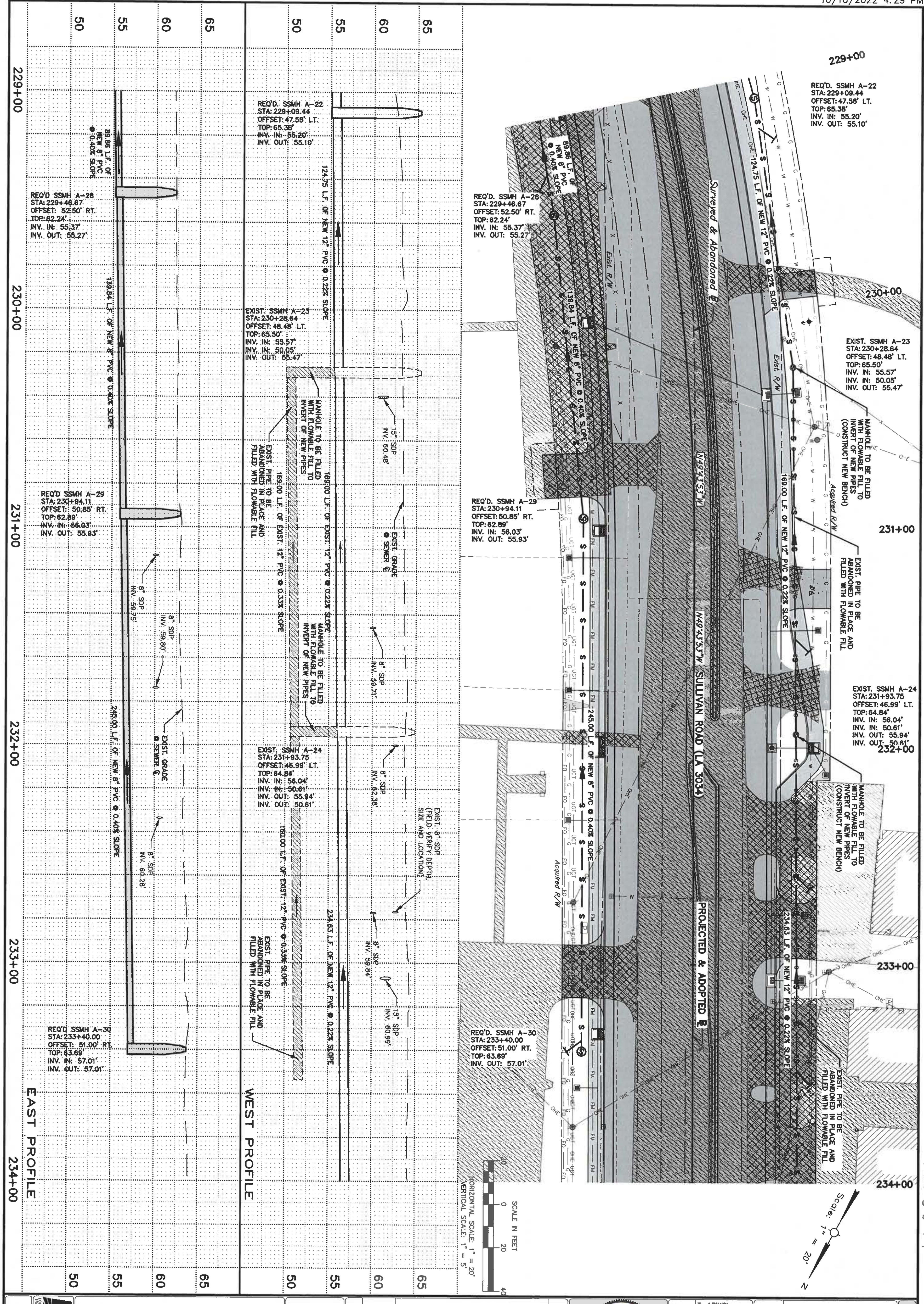

229+00
230+00
231+00
232+00
233+00
234+00
50
55
60
65
REQ'D. SSMH A-22
STA: 229+09.44
OFFSET: 47.58' LT.
TOP: 65.38'
INV. IN: 55.20'
INV. OUT: 55.10'
89.86 L.F. OF NEW 8" PVC @ 0.40% SLOPE
REQ'D SSMH A-28
STA: 229+46.67
OFFSET: 52.50' RT.
TOP: 62.24'
INV. IN: 55.37'
INV. OUT: 55.27'
124.75 L.F. OF NEW 12" PVC @ 0.22% SLOPE
139.84 L.F. OF NEW 8" PVC @ 0.40% SLOPE
EXIST. SSMH A-23
STA: 230+28.64
OFFSET: 48.48' LT.
TOP: 65.50'
INV. IN: 55.57'
INV. IN: 50.05'
INV. OUT: 55.47'
MANHOLE TO BE FILLED WITH FLOWABLE FILL TO INVERT OF NEW PIPES
MANHOLE TO BE FILLED WITH FLOWABLE FILL TO INVERT OF NEW PIPES (CONSTRUCT NEW BENCH)
EXIST. PIPE TO BE ABANDONED IN PLACE AND FILLED WITH FLOWABLE FILL
15" SDP INV. 60.48'
169.00 L.F. OF EXIST. 12" PVC @ 0.33% SLOPE
169.00 L.F. OF EXIST. 12" PVC @ 0.22% SLOPE
169.00 L.F. OF NEW 12" PVC @ 0.22% SLOPE
EXIST. GRADE @ SEWER ℄
REQ'D SSMH A-29
STA: 230+94.11
OFFSET: 50.85' RT.
TOP: 62.89'
INV. IN: 56.03'
INV. OUT: 55.93'
8" SDP INV. 59.75'
8" SDP INV. 59.80'
8" SDP INV. 59.71'
245.00 L.F. OF NEW 8" PVC @ 0.40% SLOPE
EXIST. SSMH A-24
STA: 231+93.75
OFFSET: 46.99' LT.
TOP: 64.84'
INV. IN: 56.04'
INV. IN: 50.61'
INV. OUT: 55.94'
INV. OUT: 50.61'
8" SDP INV. 62.38'
EXIST. 8" SDP (FIELD VERIFY DEPTH, SIZE AND LOCATION)
8" SDP INV. 60.28'
180.00 L.F. OF EXIST. 12" PVC @ 0.33% SLOPE
234.63 L.F. OF NEW 12" PVC @ 0.22% SLOPE
8" SDP INV. 59.84'
15" SDP INV. 60.99'
REQ'D SSMH A-30
STA: 233+40.00
OFFSET: 51.00' RT.
TOP: 63.69'
INV. IN: 57.01'
INV. OUT: 57.01'
EAST PROFILE
WEST PROFILE
Surveyed & Abandoned ℄
Exist. R/W
Acquired R/W
N49°43'53"W
SULLIVAN ROAD (LA 3034)
PROJECTED & ADOPTED ℄
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'
SCALE IN FEET
20 0 20 40
Scale: 1" = 20'
N

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LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

PEC

PLAN & PROFILE - SEWER

SULLIVAN RD (WAX - HOOPER)

STATE OF LOUISIANA

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

STATE OF LOUISIANA T.A. ARIKOL REG. No. 23244 PROFESSIONAL ENGINEER IN CIVIL ENGINEERING 100% 9/1/2022

DESIGN	T. ARIKOL
CHECK	D. COLSON
DETAIL	T. BANKER
CHECK	T. ARIKOL
REVIEW	T. ARIKOL
SERIES #	

PARISH	EAST BATON ROUGE
CONTROL SECTION	255-30, 255-02
STATE PROJECT	H.002320

SHEET NUMBER 65

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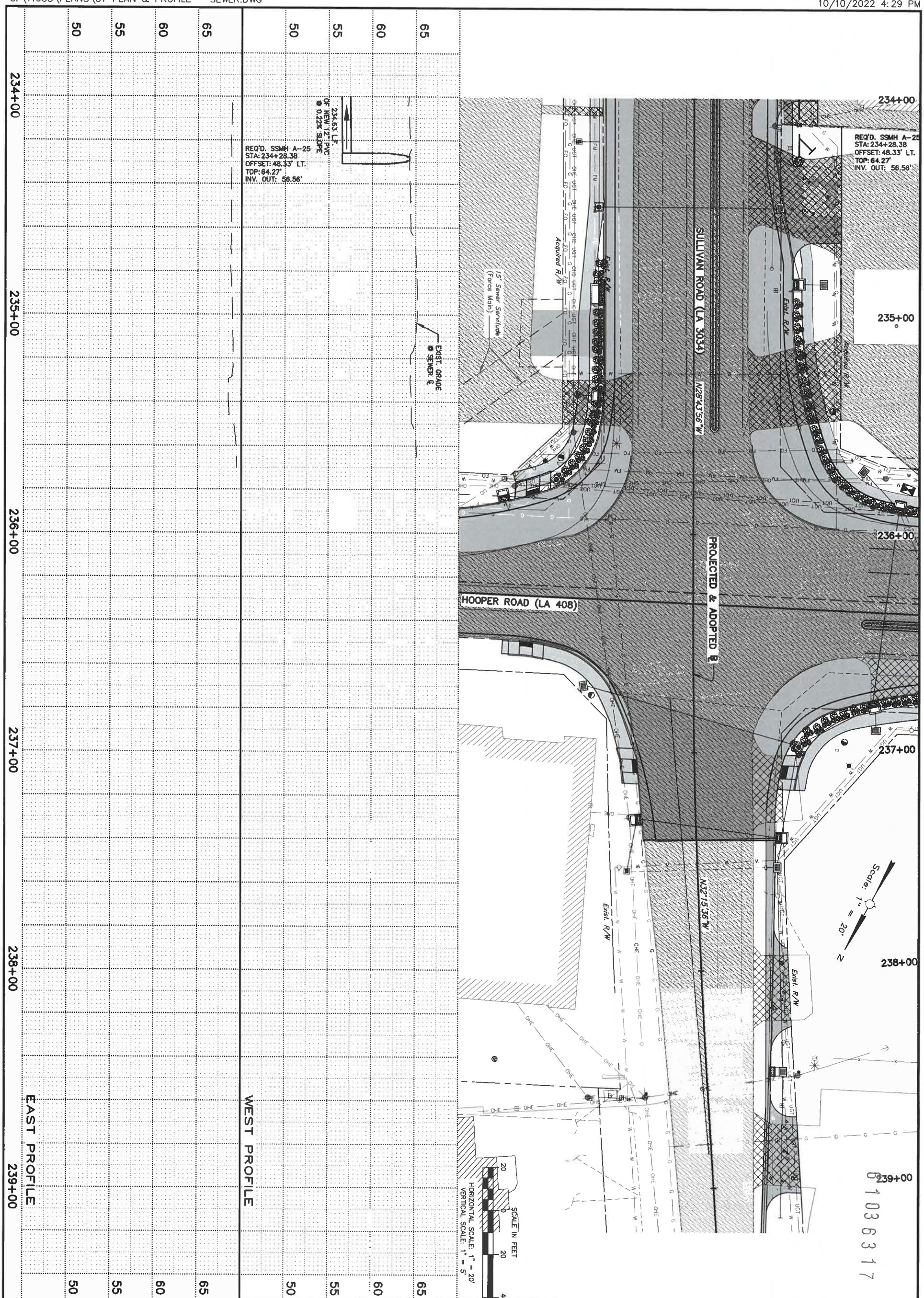

PLAN & PROFILE - SEWER

SULLIVAN RD (WAX - HOOPER)

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

DESIGN	T. ARIKOL	PARISH	EAST BATON ROUGE	SHEET NUMBER	66
CHECK	D. COLSON				
DETAIL	T. BANKER	CONTROL SECTION	255-30, 255-02		
CHECK	T. ARIKOL				
REVIEW	T. ARIKOL	STATE PROJECT	H.002320		
SERIES #					

T. A. ARIKOL 22244 REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

STATE OF LOUISIANA

DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

PEC

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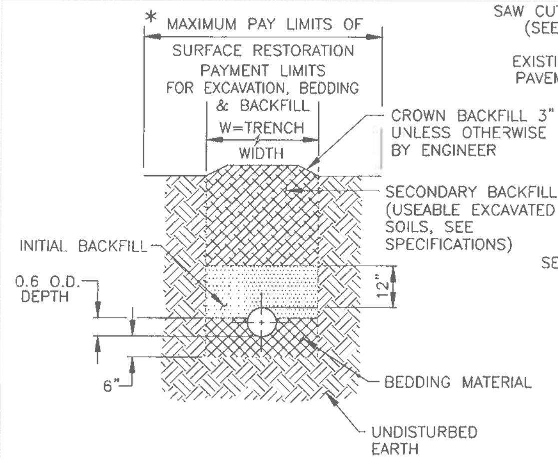
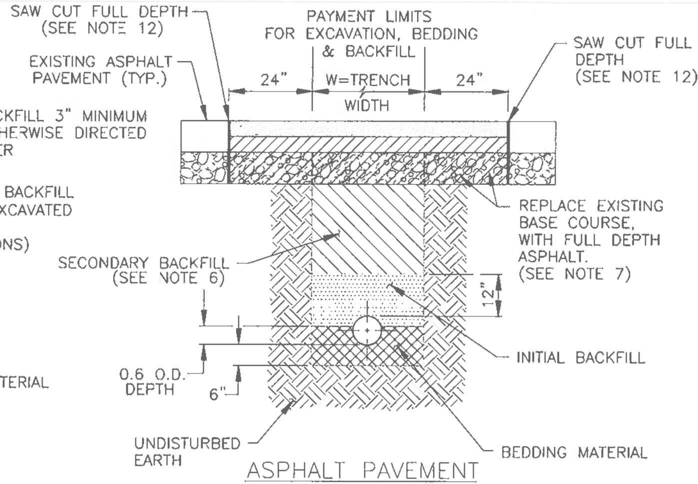
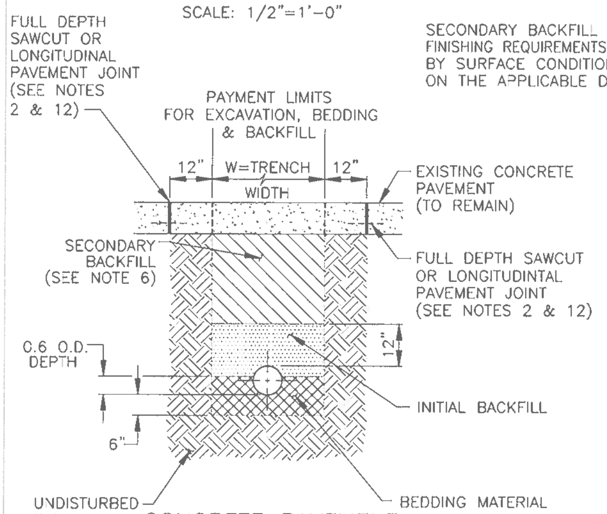
PROJECT NO.	SHEET
H.002320	801-01



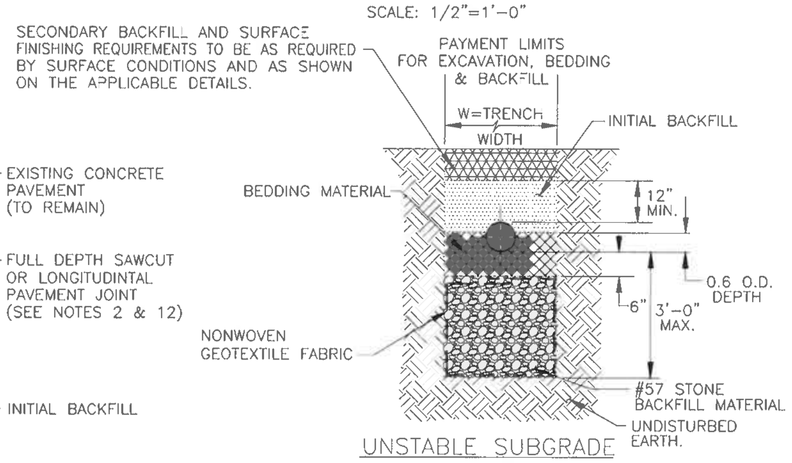
UNIMPROVED SURFACE
SCALE: 1/2"=1'-0"



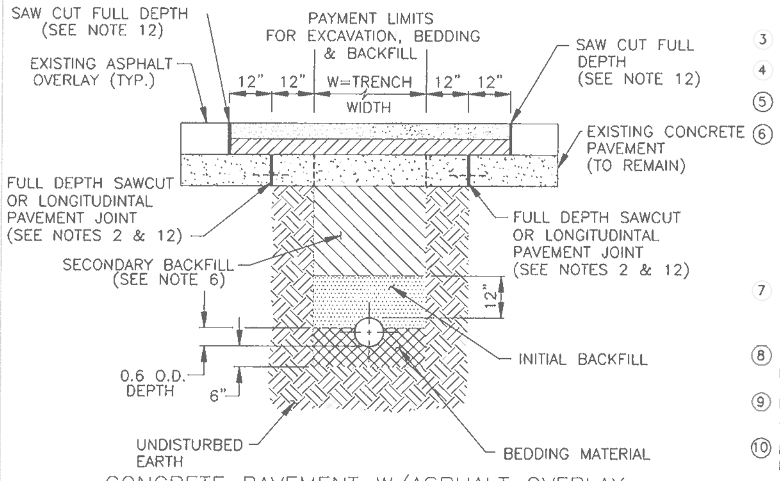
ASPHALT PAVEMENT
SCALE: 1/2"=1'-0"



CONCRETE PAVEMENT
SCALE: 1/2"=1'-0"

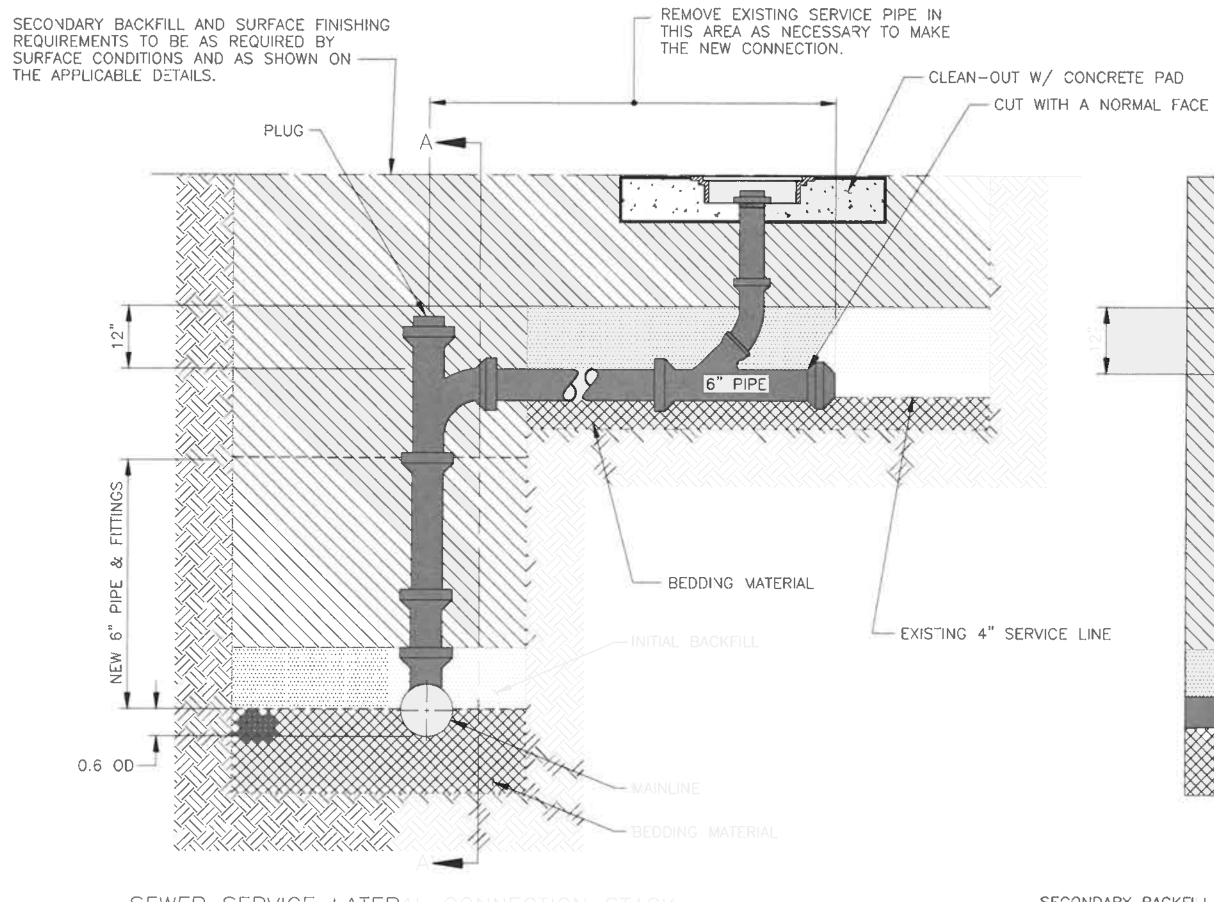


UNSTABLE SUBGRADE
SCALE: 1/2"=1'-0"

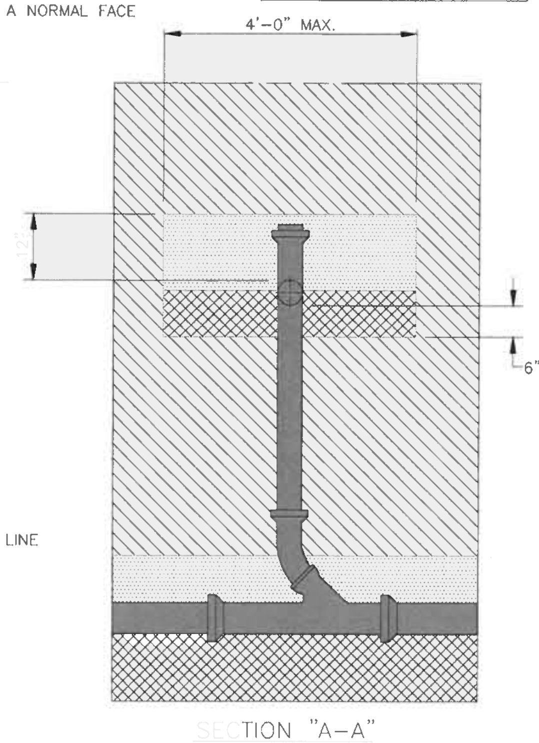


CONCRETE PAVEMENT W/ASPHALT OVERLAY
SCALE: 1/2"=1'-0"

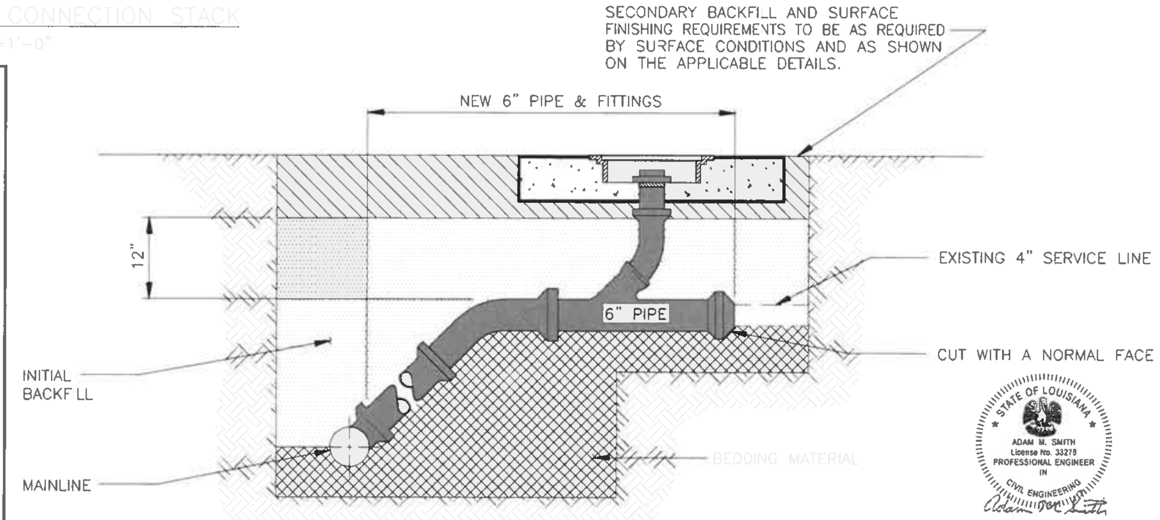
TYPICAL TRENCH EXCAVATION & FINAL PAVEMENT REPLACEMENT DETAILS



SEWER SERVICE LATERAL CONNECTION STACK
SCALE: 3/4"=1'-0"



SECTION "A-A"
SCALE: 3/4"=1'-0"



SEWER SERVICE LATERAL CONNECTION
SCALE: 3/4"=1'-0"

BACKFILL FOR SERVICE LINE RECONNECTION

NOTES:

1. TRENCH WIDTH (W) SHALL BE AS SHOWN IN THE TABLE BELOW. PIPE SHALL BE CENTERED IN TRENCH.

NOMINAL PIPE SIZE	"W"
UP TO 36"	36" + O.D.
OVER 36"	48" + O.D.

2. CONTRACTOR TO REMOVE AND REPLACE CONCRETE PAVEMENT SLABS AS SHOWN. IF CONCRETE PAVEMENT JOINT (OR EDGE OF ROAD/BACK OF CURB) IS WITHIN 2', REMOVE PAVEMENT TO JOINT LINE. PAVEMENT TO CONFORM TO STANDARD CPS 502-01(STANDARD PAVEMENT DETAILS). REUSE EXISTING DOWELS IF NOT DAMAGED DURING PAVEMENT REMOVAL. REPLACE ALL DAMAGED DOWEL WITH ½" x 2'-0" DEFORMED BARS ON 2'-0" CENTERS WITH EPOXY.
3. WATER SHALL NOT BE PERMITTED IN TRENCH DURING CONSTRUCTION. DEWATER AS NECESSARY.
4. USE OF THE UNSTABLE SUBGRADE PIPE BEDDING DETAIL IS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
5. GEOTEXTILE FABRIC SHALL BE OVERLAPPED 8" MINIMUM.
6. IF LIMITS OF THE PIPE TRENCH FALL UNDER EXISTING ASPHALTIC OR PCC ROADWAYS AND/OR EXISTING PARKING LOTS, THE SECONDARY BACKFILL SHALL BE #610 STONE OR AS SPECIFIED IN SECTION 801 OF THE SPECIFICATIONS.

   IF LIMITS OF THE PIPE TRENCH FALL OUTSIDE OF, BUT WITHIN 10 FT. OF THE EDGE OF AN EXISTING ROADWAY, OR UNDER THE LIMITS OF A FUTURE ROADWAY TO BE CONSTRUCTED SUBSEQUENT TO SANITARY SEWER INSTALLATION; THE SECONDARY BACKFILL SHALL BE THE SAND-AGGREGATE MIXTURE. REFER TO SECTION 801 OF THE SPECIFICATIONS FOR SPECIFIC REQUIREMENTS.

   IN AREAS OUTSIDE THOSE DESCRIBED ABOVE, SECONDARY BACKFILL MATERIAL SHALL CONSIST OF USABLE EXCAVATED SOILS.
7. ASPHALTIC CONCRETE PAVEMENT SHALL BE REPLACED WITH FULL DEPTH ASPHALT CONSISTING OF A MINIMUM 7" THICKNESS OF MIX TYPE B BASE COURSE AND 2" THICKNESS OF WEARING COURSE FOR CITY/PARISH STREETS IN ACCORDANCE WITH THE SPECIFICATIONS. MINIMUM 4" MIX TYPE B (PG64-22) FOR PARKING LOTS AND DRIVEWAYS.
8. ASPHALT OR CONCRETE PAVEMENT OR UNIMPROVED GRANULAR SURFACE REMOVED IN EXCESS OF LIMITS SHOWN SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
9. BEDDING AND BACKFILL NEEDED IN EXCESS OF LIMITS SHOWN SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
10. MAXIMUM PAYMENT LENGTHS FOR REMOVAL AND RESTORATION OF SURFACES SHALL BE THE SAME AS FOR THE EXCAVATION, BEDDING AND BACKFILL.
11. *PAY LIMITS OF SURFACE RESTORATION ON UNIMPROVED SURFACES SHALL BE LIMITED TO THE WIDTH OF THE SEWER SERVITUDE OR AS SPECIFIED ON THE DRAWINGS AND MUST BE APPROVED BY THE ENGINEER.
12. FINAL EDGES ALONG PAVEMENT REMOVAL LIMITS SHALL BE STRAIGHT, CLEAN, SOLID, VERTICAL FACES FREE FROM LOOSE MATERIAL PRIOR TO PAVEMENT RESTORATION. SAWCUTTING AT LIMITS SHOWN SHALL BE PAID ONLY ONCE PER TRENCH PATCH. ANY ADDITIONAL SAWCUTS FOR THE CONVENIENCE OF THE CONTRACTOR SHALL BE AT NO ADDITIONAL COST TO THE OWNER.
13. IMPROVED GRANULAR SURFACE LIMITS SIMILAR TO CONCRETE PAVEMENT LIMITS.

STATE OF LOUISIANA
ADAM M. SMITH
License No. 33278
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
AUGUST 25, 2016

STANDARD PLAN NO.	DATED	SHEET NO.
801-01	APRIL 17, 2015	1 OF 1

BEDDING AND BACKFILL DETAILS FOR SANITARY SEWER PIPE, FORCE MAINS AND SERVICE LINES

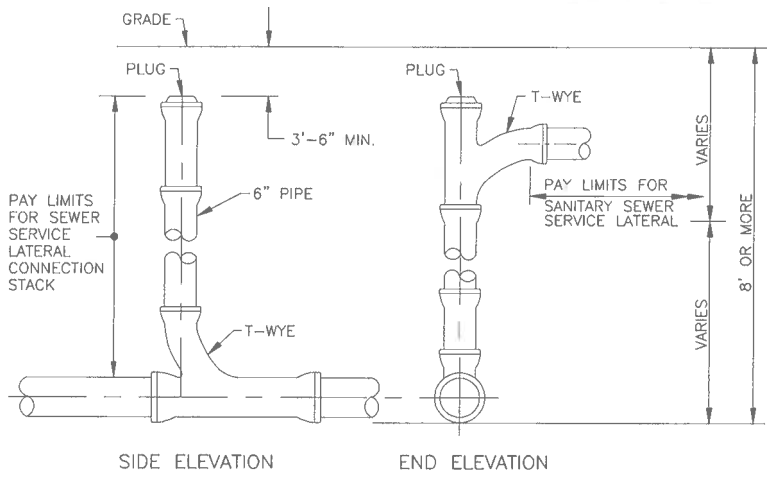
DATE	DESCRIPTION	BY
5/16	REVISED TITLE OF UNSTABLE SUBGRADE DETAIL	A.M.S.
4/15	DELETED GEOTEXTILE FABRIC EXCEPT FOR USE WITH #57 STONE AND REVISED GENERAL NOTES	A.M.S.
4/13	REVISED STACK DETAILS AND REVISED GENERAL NOTES	A.S.
10/12	ADDED GEOTEXTILE FABRIC ON SEC. BACKFILL	A.S.
REVISIONS		

SEWER ENGINEERING DIVISION
DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
A. SCHULZE	G. VANNICE	N. COBB	A. SMITH

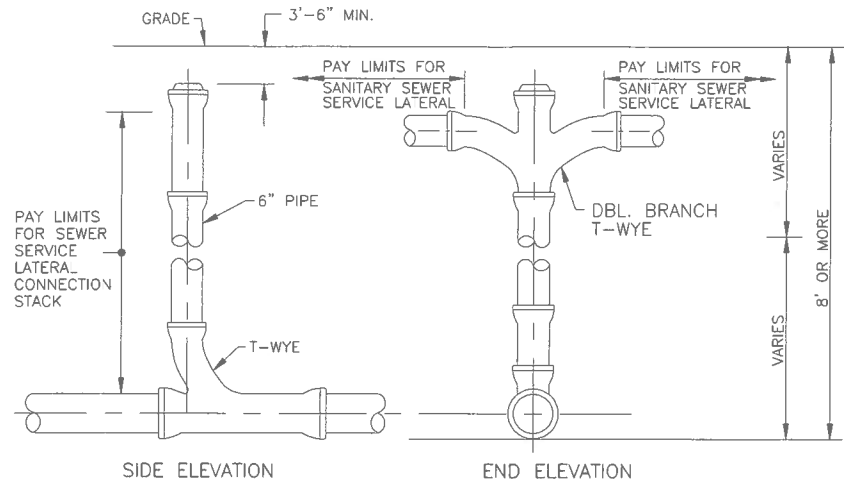
801-01

PROJECT NO.	SHEET
H.002320	802-01



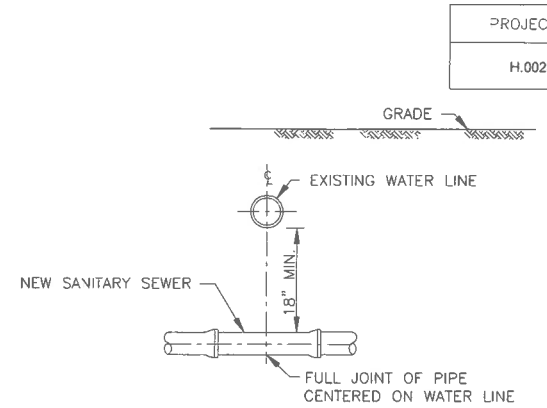
SEWER SERVICE LATERAL SINGLE CONNECTION STACK

SCALE: 3/4"=1'-0"



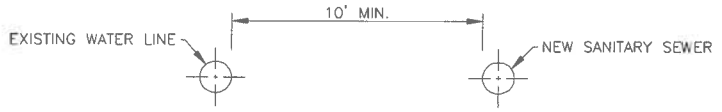
SEWER SERVICE LATERAL DOUBLE CONNECTION STACK

SCALE: 3/4"=1'-0"



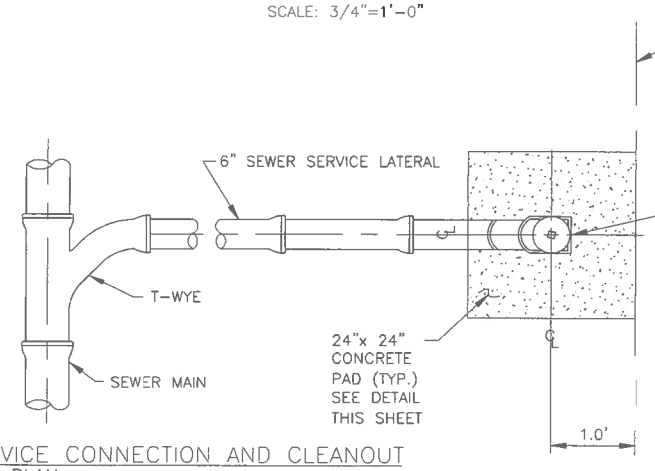
NEW SANITARY SEWER CROSSING EXISTING WATER LINE

SCALE: 3/4"=1'-0"



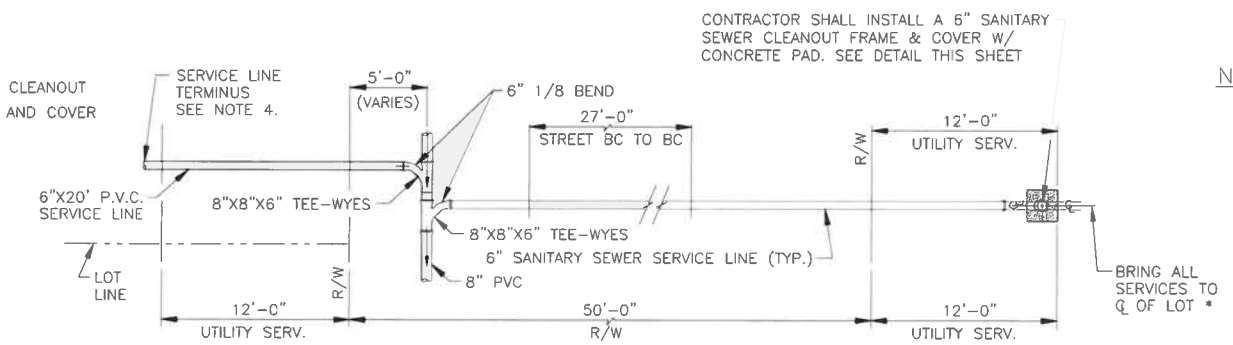
NEW SANITARY SEWER PARALLEL EXISTING WATER LINE

SCALE: 1/2"=1'-0"



SERVICE CONNECTION AND CLEANOUT PLAN

SCALE: 1"=1'-0"

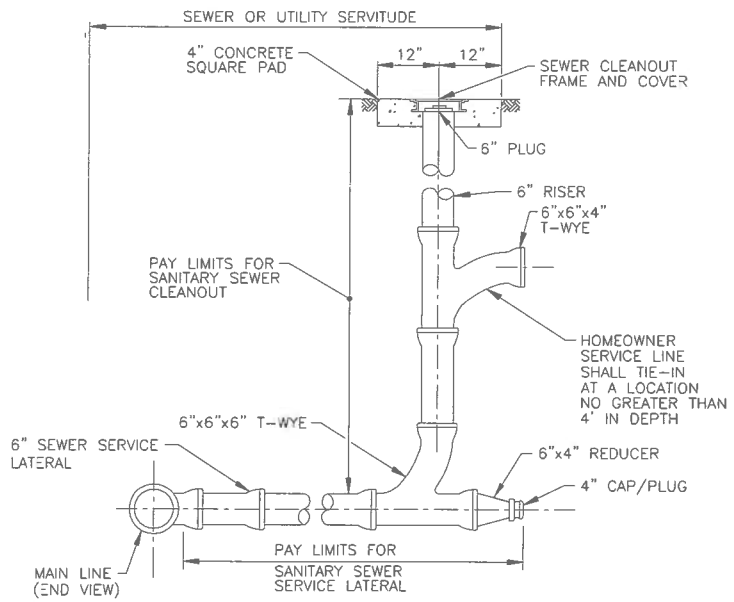


TYPICAL LOT SERVICE DETAIL

SCALE: 3/16"=1'-0"

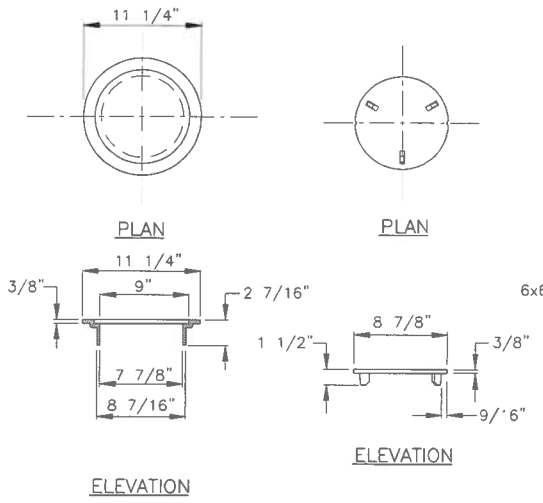
NOTES:

1. DEPARTMENT OF HEALTH AND HOSPITALS MUST APPROVE INSTALLATION METHOD IF VERTICAL AND HORIZONTAL SEPARATIONS BETWEEN SEWER AND WATER LINES CANNOT BE MET.
2. SEPARATION REQUIREMENTS SHOWN HERE DO NOT APPLY TO SERVICE CONNECTIONS – REFER TO PLUMBING CODE FOR APPLICABLE REQUIREMENTS.
3. SEWER CLEANOUT FRAME AND COVER SHALL MEET THE LATEST EDITION OF AASHTO M306.
4. IN NEW SUBDIVISIONS OR IN NEW SEWER SERVICE AREAS WHERE NEW SERVICE LATERAL CONNECTIONS ARE REQUIRED, THE SEWER SERVICE LATERAL TERMINATION SHALL BE STUBBED ABOVE GROUND AT THE BACK EDGE OF ALL SERVITUDES PRIOR TO FINAL PLUMBING INSPECTION AND ACCEPTANCE, THE PLUMBING CONTRACTOR FOR EACH LOT SHALL INSTALL THE CLEANOUT AS SHOWN.
5. DOUBLE WYES ARE ONLY ALLOWED ON LOTS 50' WIDE OR LESS AND SHALL ONLY BE ON THOSE SERVICES CROSSING THE STREET. SERVICES NOT CROSSING THE STREET AND ON LOTS GREATER THAN 50' WIDE SHALL HAVE SINGLE WYES TO THE CENTER OF THE LOTS AS SHOWN.



SANITARY SEWER CLEANOUT (TO GRADE)

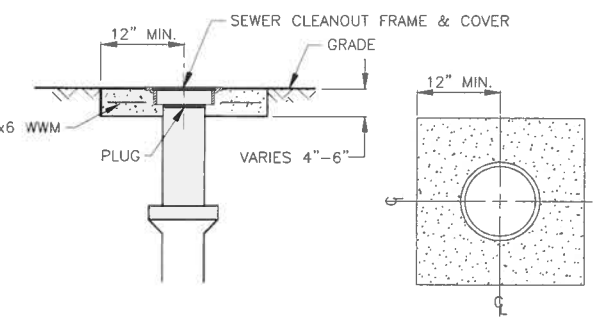
SCALE: 3/4"=1'-0"



SEWER CLEANOUT FRAME AND COVER

EJIW V-8503 OR APPROVED EQUAL

SCALE: 1 1/2"=1'-0"



24"X24" CONCRETE PAD

(PRECAST CONCRETE PAD ACCEPTABLE)

SCALE: 1"=1'-0"

STATE OF LOUISIANA
ADAM M SMITH
License No 33278
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

AUGUST 25, 2016

STANDARD PLAN NO.	DATED	SHEET NO.
802-01	AUGUST 1, 2011	1 OF 2

SANITARY SEWER PIPE AND CLEANOUT DETAILS

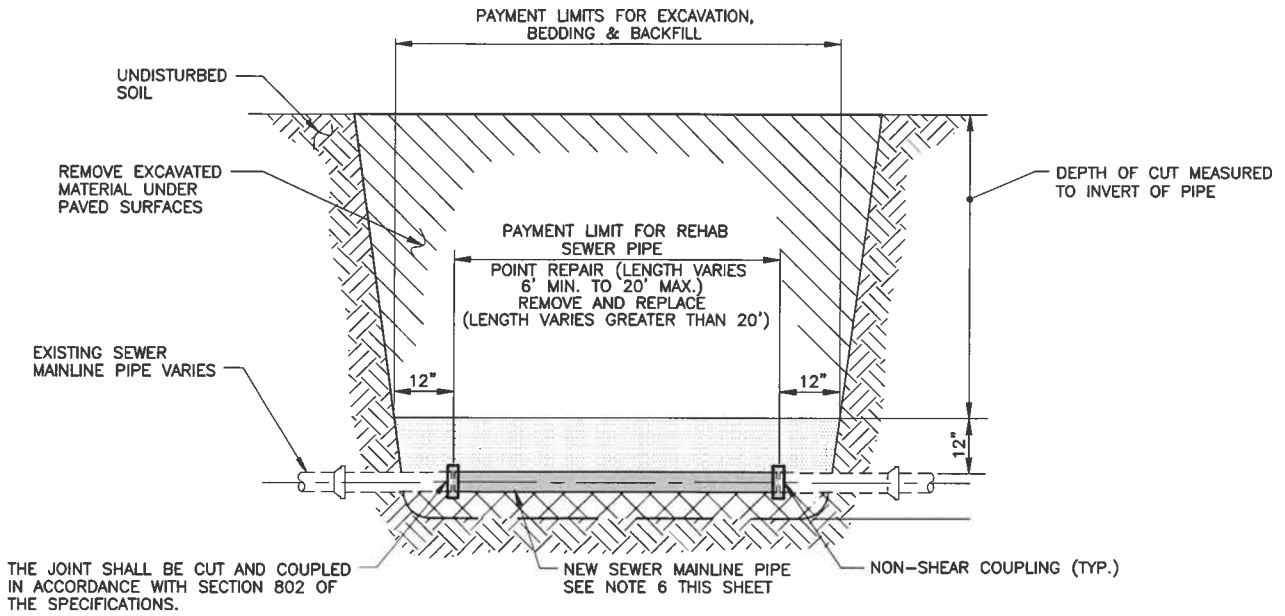
DATE	DESCRIPTION	BY
5/16	REVISED LATERAL STACK DIMENSION & ADDED PAY LIMITS	A.M.S
	REVISIONS	

SEWER ENGINEERING DIVISION
DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
A. SCHULZE	G. VANNICE	N. COBB	A. SMITH

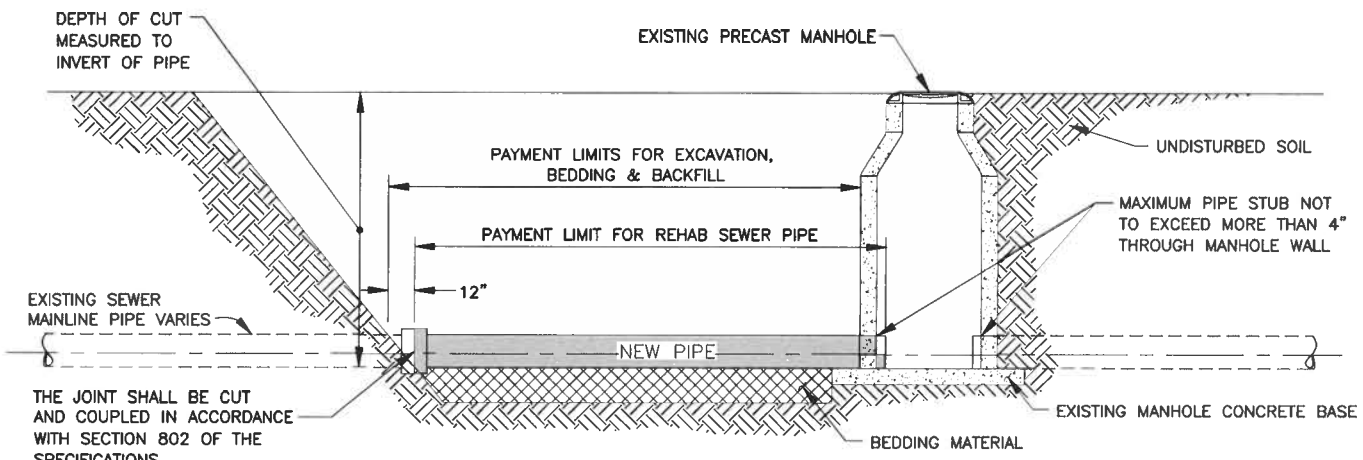
6 10 36 3 17

PROJECT NO.	SHEET
H.002320	802-01



STANDARD TYPICAL SEWER PIPE REPLACEMENT AT MID SEGMENT

N.T.S.



STANDARD TYPICAL SEWER PIPE REPLACEMENT AT MANHOLE

N.T.S.

NOMINAL PIPE DIA. (INCHES)	MINIMUM GRADE (%)	MAX. ALLOWABLE SAG DEPTH (D)* IN INCHES OF WATER EQUAL OR LESS THAN MINIMUM GRADE	MAXIMUM SAG LENGTH (L)**	MIN. ALLOWABLE DIST. BETWEEN SAGS W/ 10% OR GREATER DEPTH (X)***
8	0.400	0.8"	6 FT	36 FT
10	0.280	1"	6 FT	36 FT
12	0.220	1.1"	9 FT	54 FT
15	0.150	1.5"	9 FT	54 FT
16	0.140	1.5"	9 FT	54 FT
18	0.120	1.5"	9 FT	72 FT
21	0.100	1.5"	9 FT	72 FT
24	0.080	1.5"	9 FT	72 FT
27	0.067	2"	9 FT	72 FT
30	0.058	2"	9 FT	72 FT
36	0.046	2"	9 FT	72 FT
42	0.037	2"	9 FT	72 FT

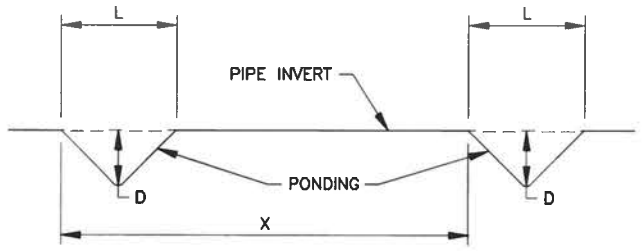
SANITARY SEWER GRADE TOLERANCE/ ACCEPTABLE SAG LIMITS

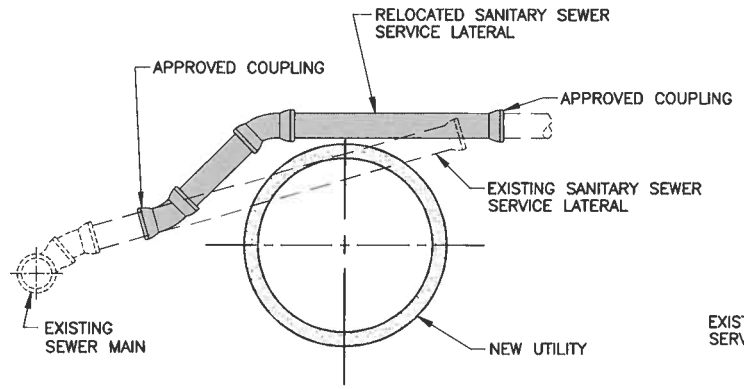
N.T.S.

*D = MAX. ALLOWABLE SAG DEPTH =ALLOWABLE DEPTH OF POOLED WATER AS MEASURED FROM WATER SURFACE TO INVERT OF PIPE BY USE OF SAG GAUGE.

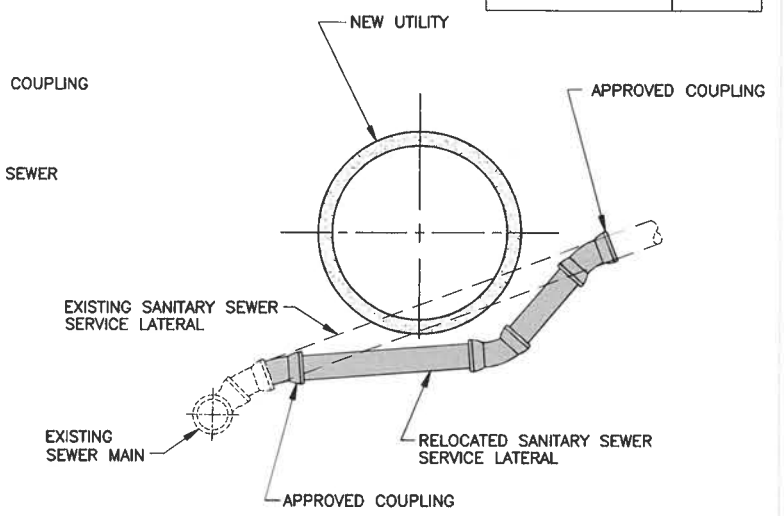
**L = SAG LENGTH = LENGTH OF POOLED WATER SURFACE AS MEASURED FROM UPSTREAM EDGE OF POOLED WATER SURFACE TO DOWNSTREAM EDGE OF POOLED WATER SURFACE.

***X = DISTANCE BETWEEN SAGS, AS MEASURED FROM UPSTREAM EDGE OF POOLED WATER SURFACES BETWEEN CONSECUTIVES SAGS.

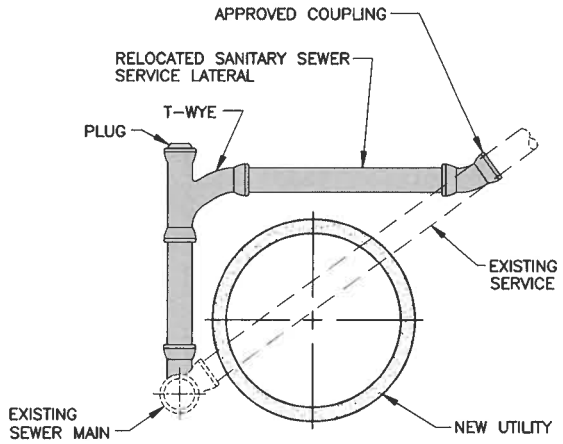




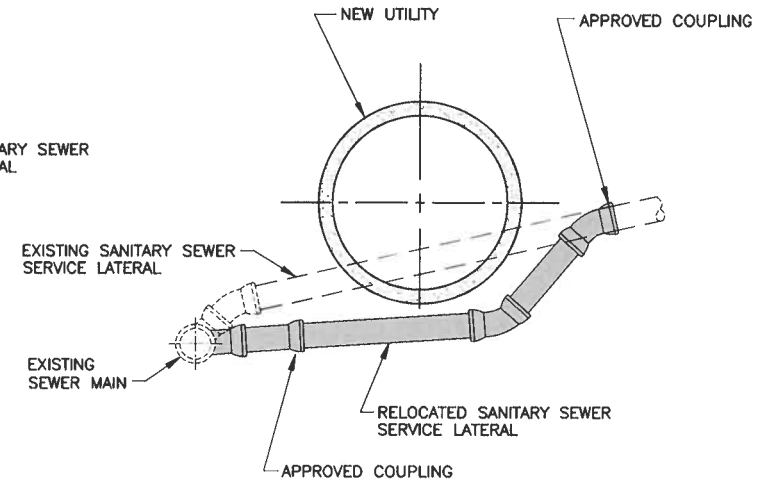
CASE "A"



CASE "C"



CASE "B"



CASE "D"

LEGEND

= RELOCATED SANITARY SEWER SERVICE LATERAL

= EXISTING SANITARY SEWER SERVICE LATERAL

ADJUSTED SANITARY SEWER SERVICE LATERAL CONNECTION DETAILS

N.T.S.

NOTES:

1. THE RELOCATED SANITARY SEWER SERVICE LATERAL SHALL BE CONSTRUCTED OF POLYVINYL CHLORIDE (PVC) PIPE EXCEPT WHERE THE SANITARY SEWER SERVICE LATERAL IS BELOW THE UTILITY OR HAS LESS THAN 3 FEET OF COVER TO FINISH GRADE. IN THESE CASES THE PIPE MATERIAL SHALL BE DUCTILE IRON.
2. THE RELOCATED SANITARY SEWER SERVICE LATERAL SHALL BE CONNECTED TO THE EXISTING PIPE WITH APPROVED NON-SHEAR COUPLINGS.
3. USE OF CASE "D" TYPE REROUTING DEPENDS ON THE LEVEL OF FLOW (PRESENT AND FUTURE) WITHIN MAINLINE SEWER – SUBJECT TO CASE APPROVAL BY ENGINEER.
4. MINIMUM SLOPE ON ANY REROUTED SEGMENT OF SANITARY SEWER SERVICE LATERAL TO BE 1.00%.
5. NEW SEWER PIPE LENGTH & TYPE TO BE DEFINED BY ENGINEER.
6. BEDDING, SECONDARY BACKFILL, INITIAL BACKFILL, AND SURFACE RESTORATION SHALL BE IN ACCORDANCE WITH SECTION 801 OF THE SPECIFICATION AND STANDARD PLAN 801-01.

DATE	DESCRIPTION	BY
6/17	ADDED SAG LIMIT DETAIL	AMS
7/16	REVISED NOTE 2 & DIMENSION	AMS

REVISIONS

STATE OF LOUISIANA
ADAM M SMITH
License No 33278
PROFESSIONAL ENGINEER
CIVIL ENGINEERING

JUNE 28, 2017

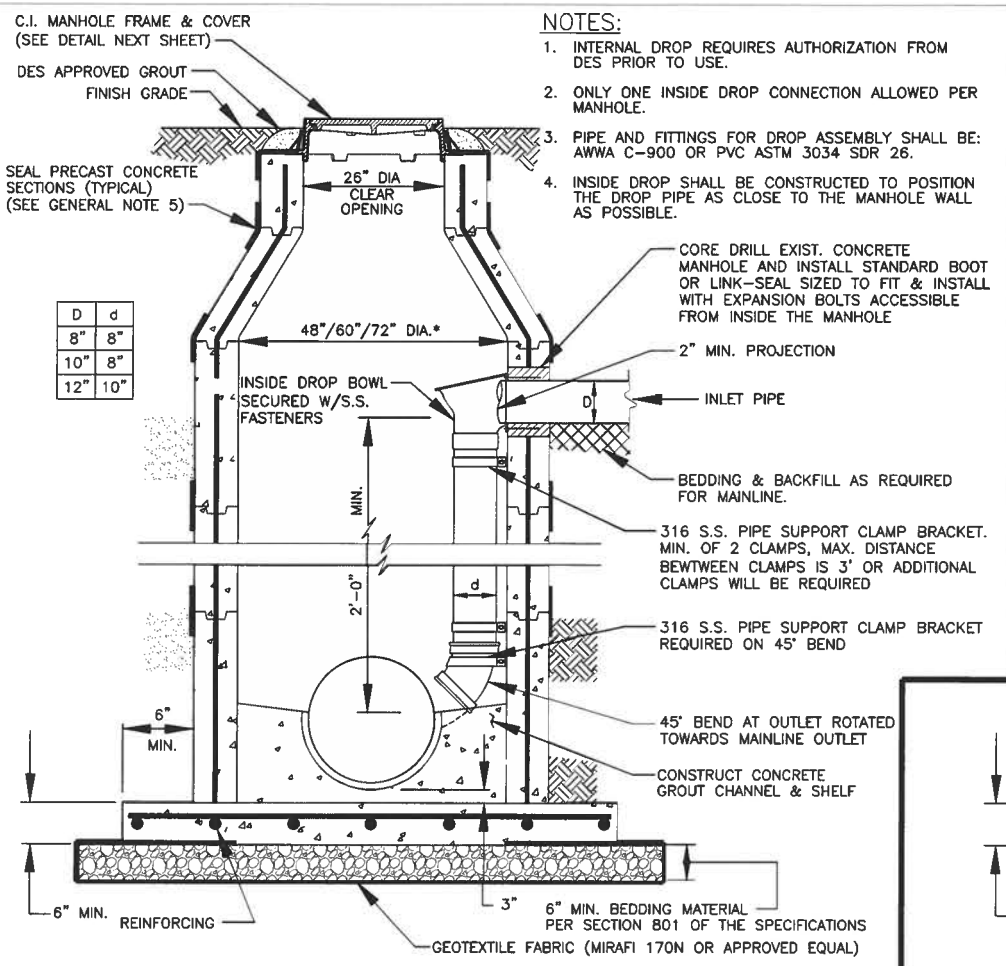
STANDARD PLAN NO.	DATED	SHEET NO.
802-01	AUGUST 1, 2011	2 OF 2

SANITARY SEWER PIPE AND CLEANOUT DETAILS

SEWER ENGINEERING DIVISION
DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
A. SCHULZE	G. VANNICE	N. COBB	A. SMITH

802-01

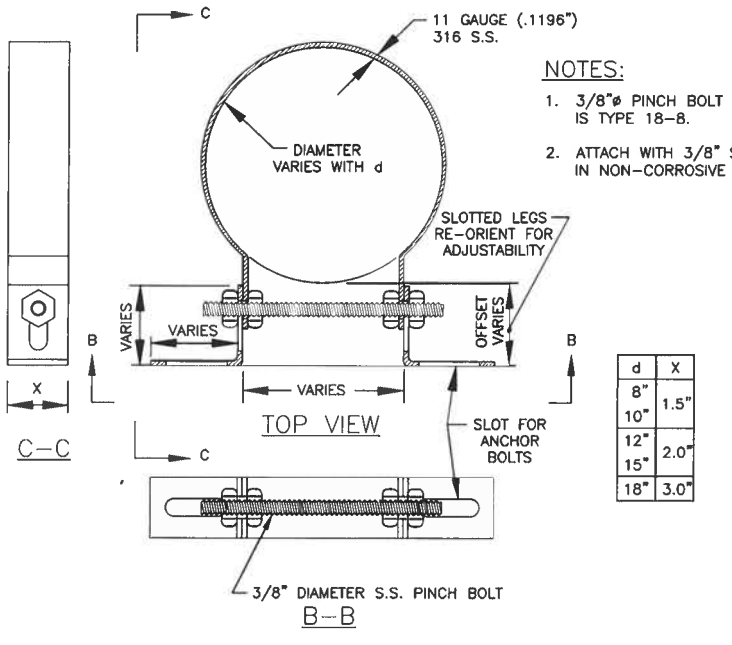


STANDARD GRAVITY SEWER INTERNAL DROP MANHOLE

N.T.S.

NOTES:

1. INTERNAL DROP REQUIRES AUTHORIZATION FROM DES PRIOR TO USE.
2. ONLY ONE INSIDE DROP CONNECTION ALLOWED PER MANHOLE.
3. PIPE AND FITTINGS FOR DROP ASSEMBLY SHALL BE: AWWA C-900 OR PVC ASTM 3034 SDR 26.
4. INSIDE DROP SHALL BE CONSTRUCTED TO POSITION THE DROP PIPE AS CLOSE TO THE MANHOLE WALL AS POSSIBLE.

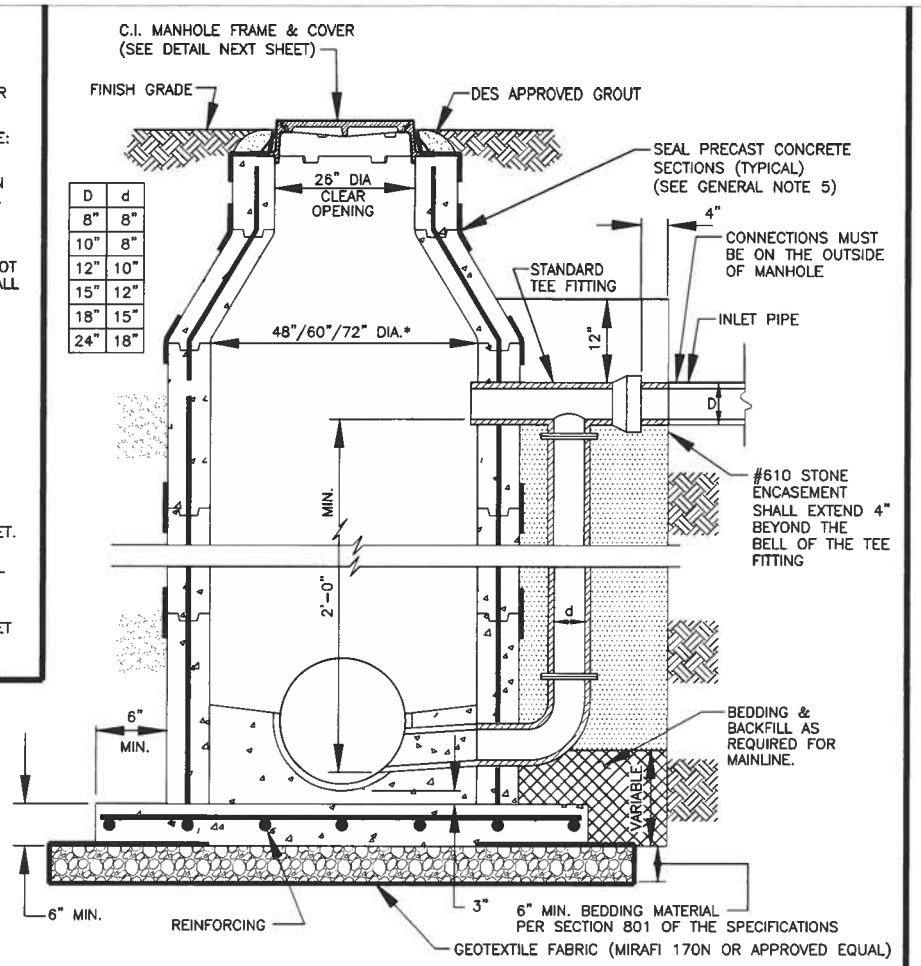


NOTES:

1. 3/8"ø PINCH BOLT AND NUTS IS TYPE 18-8.
2. ATTACH WITH 3/8" S.S. BOLTS IN NON-CORROSIVE SHIELDS.

CLAMP BRACKET DETAIL

N.T.S.

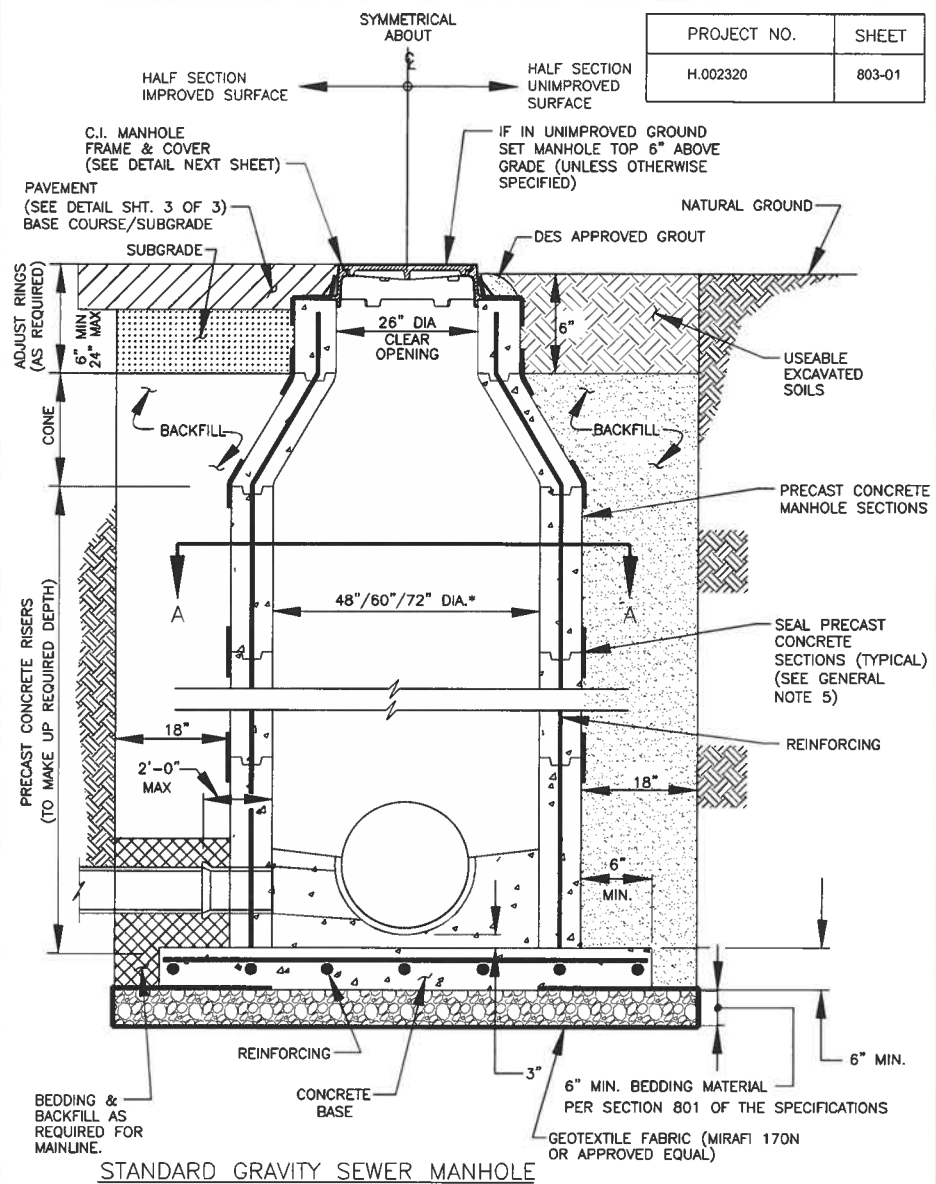


STANDARD GRAVITY SEWER DROP MANHOLE

N.T.S.

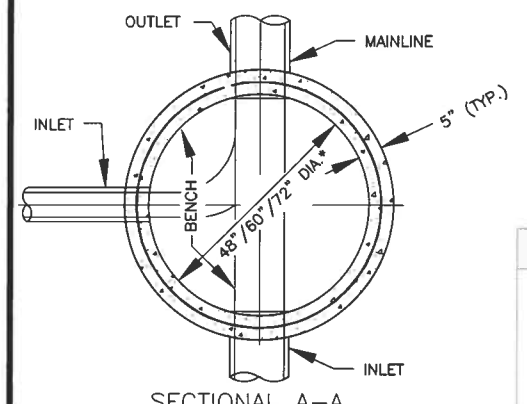
MANHOLE GENERAL NOTES:

1. ALL STUBS FROM MANHOLES AND ENDS OF PIPE TO WHICH CONNECTIONS ARE TO BE MADE UNDER THIS CONTRACT SHALL BE PROVIDED WITH TEMPORARY WATER TIGHT PLUGS OR CAPS. ALL STUBS FOR CONNECTIONS TO OTHER CONTRACTS SHALL BE PROVIDED WITH WATER TIGHT PLUGS PLACED FROM INSIDE OF MANHOLE. SEWERS WHICH ARE TO BE CONNECTED TO MANHOLES WHICH WILL BE BUILT UNDER OTHER CONTRACTS SHALL BE PROVIDED WITH WATER TIGHT PLUGS AND CAPS. STUBS SHALL BE A MAXIMUM OF 2FT. INLENGTH. SUCH PLUGS LOCATED AT JUNCTIONS OF TWO CONTRACTS SHALL REMAIN IN PLACE SHALL BE REMOVED BY OTHERS.
2. THE BENCH SHALL SLOPE TOWARD THE INVERT CHANNEL AT THE RATE OF (1.5"/FT.), BUT MINIMUM OF 3" DIFFERENCE SHALL BE MAINTAINED FROM THE TOP OF CHANNEL TO THE WALL.
3. ALL CAST IRON FRAME COVERS SHALL BE TRAFFIC BEARING. FRAME AND COVERS SHALL MEET OR EXCEED ALL REQUIREMENTS OF THE LATEST AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS DESIGNATION: M308 STANDARD SPECIFICATION FOR DRAINAGE, SEWER, UTILITY, AND RELATED CASTINGS. THEY SHALL HAVE AN ENVIRONMENTALLY SAFE, WATER-BASE ASPHALTIC COATING WHICH IS NONTOXIC, NONFLAMMABLE, COLORLESS, AND DRIES TO A HARD BLACK FINISH.
4. THE DEPTH OF THE INVERT CHANNEL SHALL BE EQUAL TO HALF THE DIAMETER OF THE LARGEST DIAMETER SEWER PIPE IN THE MANHOLE.
5. MANHOLE SECTIONS SHALL BE JOINED TOGETHER WITH FLEXIBLE WATERTIGHT RUBBER GASKETS AND EXTERNALLY SEALED AT THE JOINTS IN ACCORDANCE WITH THE SPECIFICATIONS.
6. ALL MANHOLES ARE TO BE CONSTRUCTED OF PRECAST CONCRETE (BASE, RISERS AND CONE). NO BRICK MANHOLES WILL BE ACCEPTED UNLESS APPROVED IN WRITING.
7. BEDDING AND BACKFILL SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS. SEE SPECIFICATIONS FOR MATERIAL REQUIREMENTS AND PLACEMENT AND COMPACTION OF PIPE BEDDING MATERIALS.
8. PIPE PENETRATIONS SHALL CONFORM TO THE SPECIFICATIONS.
9. REINFORCING FOR PRE-CAST MANHOLES AS PER ASTM C-478.
10. FOR SEWERS 16" DIA. OR LESS CONSTRUCT 48" DIA. MANHOLE, FOR SEWERS LARGER THAN 16" UP TO 24" DIA. CONSTRUCT 60" DIA. MANHOLE, AND FOR SEWERS LARGER THAN 24" DIA. CONSTRUCT 72" DIA. MANHOLE. MANHOLE DIA. SIZING, HOWEVER IS CONTINGENT UPON THE LIMITATIONS OF THE MANUFACTURER DUE TO PIPE SIZE AND ORIENTATION AT THE MANHOLE. THE DESIGN ENGINEER MUST VERIFY THAT THE PROPER MANHOLE DIA. IS PROVIDED.
11. MANHOLE SHALL NOT INCLUDE STEPS.



STANDARD GRAVITY SEWER MANHOLE

N.T.S.



SECTIONAL A-A

N.T.S.

PROJECT NO.	SHEET
H.002320	803-01

STATE OF LOUISIANA
ADAM M. EM TH
License No. 33278
PROFESSIONAL ENGINEER
CIVIL ENGINEERING

JANUARY 23, 2020

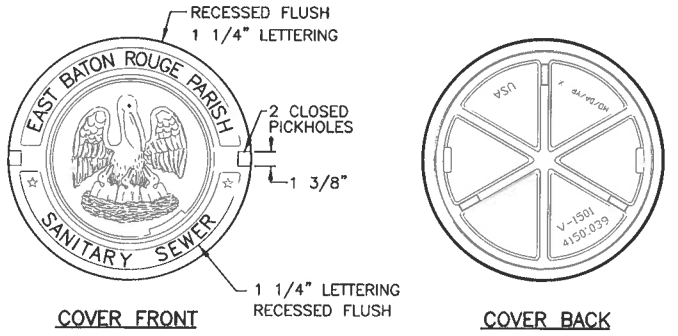
STANDARD PLAN NO.	DATED	SHEET NO.
803-01	AUGUST 1, 2011	1 OF 3

SANITARY SEWER MANHOLES

ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

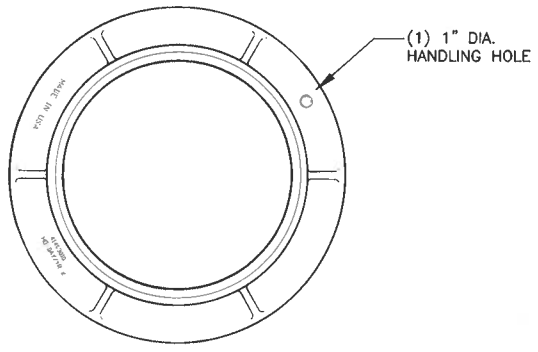
DESIGNED	DRAWN	CHECKED	APPROVED
A. SCHULZE	G. VANNICE	R. WRIGHT	B. HARMON

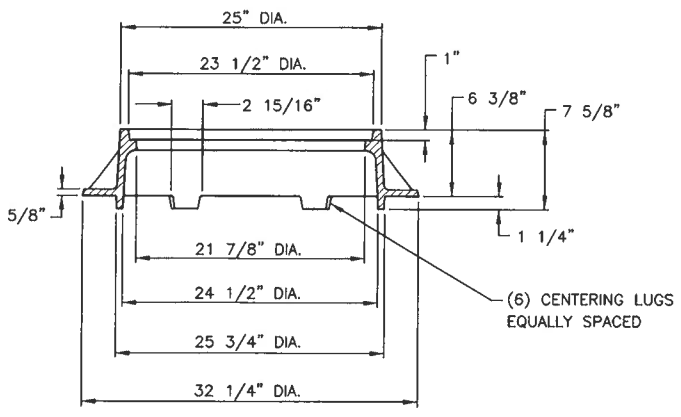
DATE	DESCRIPTION REVISIONS	BY
1-20	ADDED INTERNAL DROP MANHOLE & CLAMP BRACKET DETAIL	A.M.S.
4-13	REVISED GENERAL NOTES, ADDED DIMENSIONS	A.S.



STANDARD HEAVY DUTY MANHOLE COVER

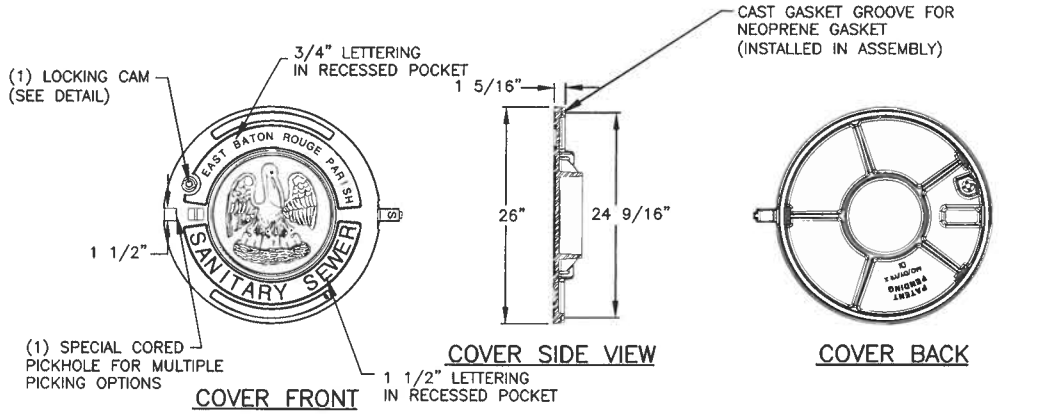
EJIW MODEL V-1501 OR APPROVED EQUAL

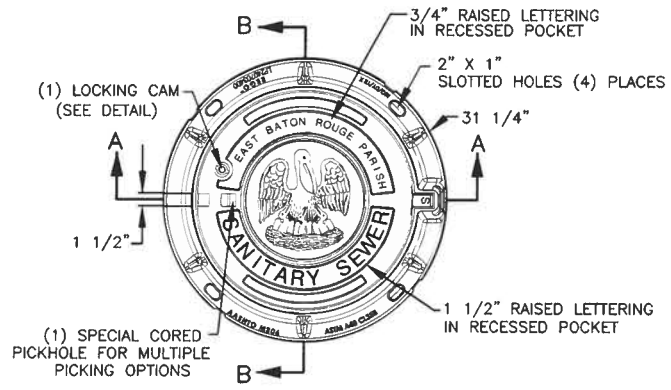


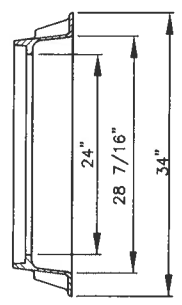


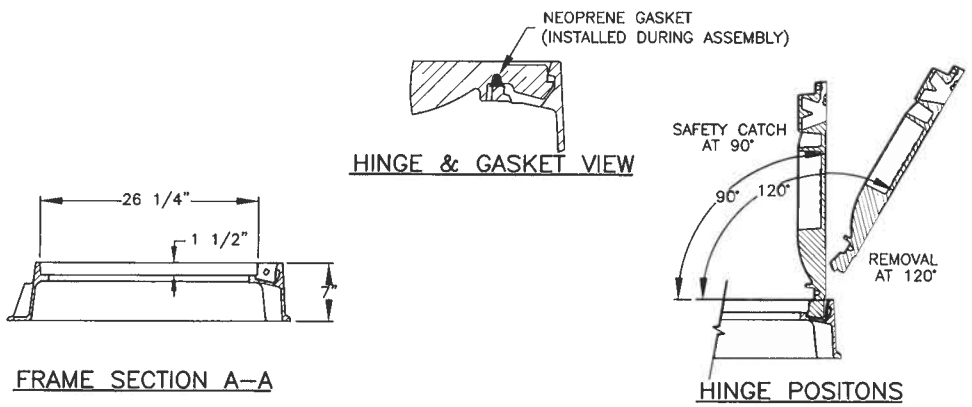
STANDARD MANHOLE FRAME WITH LUGS

EJIW MODEL V-1403 OR APPROVED EQUAL





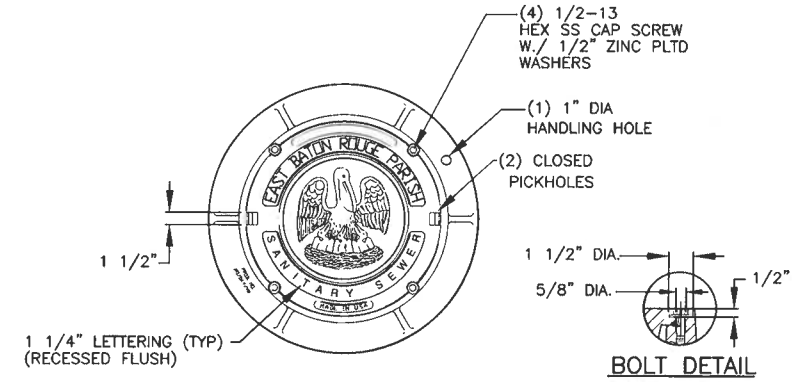


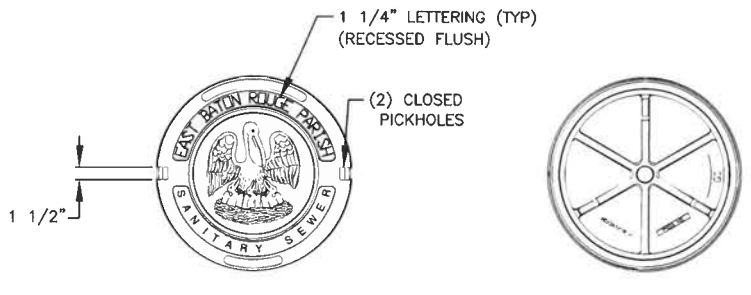


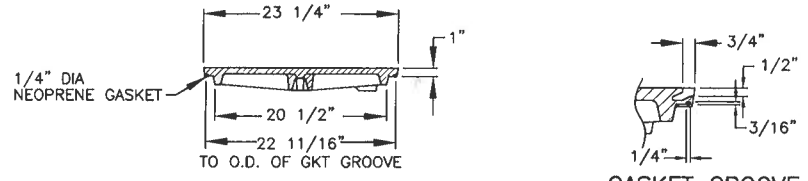
HINGED MANHOLE ASSEMBLY

EJIW MODEL 24" ERGO OR APPROVED EQUAL

PROJECT NO.	SHEET
H.002320	803-01







BOLT DOWN WATERTIGHT MANHOLE ASSEMBLY

EJIW MODEL V-1501GS OR APPROVED EQUAL (COVER)
EJIW MODEL V-1403 OR APPROVED EQUAL (FRAME)

GENERAL NOTE:

1. TYPE OF FRAME AND COVER TO BE USED SHALL BE AS SHOWN ON PLANS OR AS DIRECTED BY PROJECT ENGINEER.

STATE OF LOUISIANA
BRYAN K. HARMON
REG. No. 22595
REGISTERED PROFESSIONAL ENGINEER
CIVIL
AUGUST 1, 2011

STANDARD PLAN NO.	DATED	SHEET NO.
803-01	AUGUST 1, 2011	2 OF 3

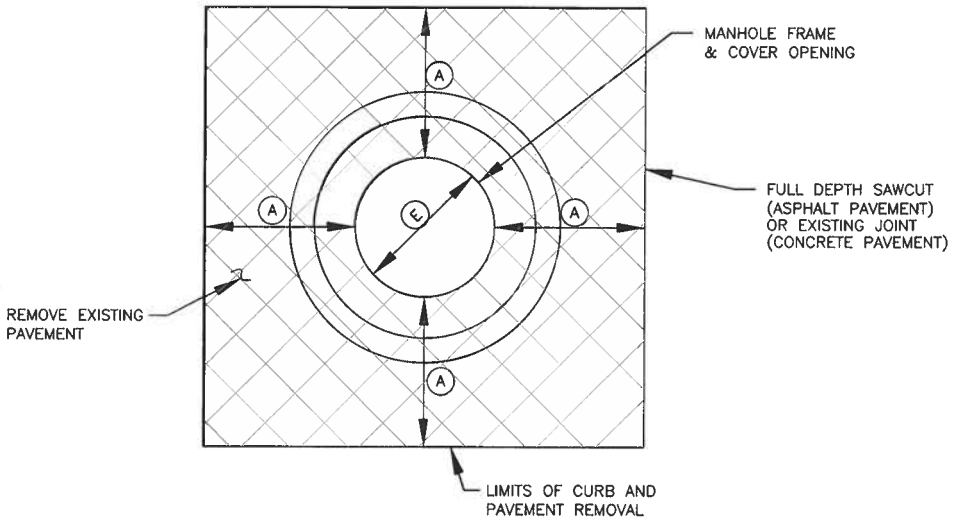
SANITARY SEWER MANHOLES

DATE	DESCRIPTION REVISIONS	BY

ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
A. SCHULZE	C. VANNICE	R. WRIGHT	B. HARMON

PROJECT NO.	SHEET
H.002320	803-01

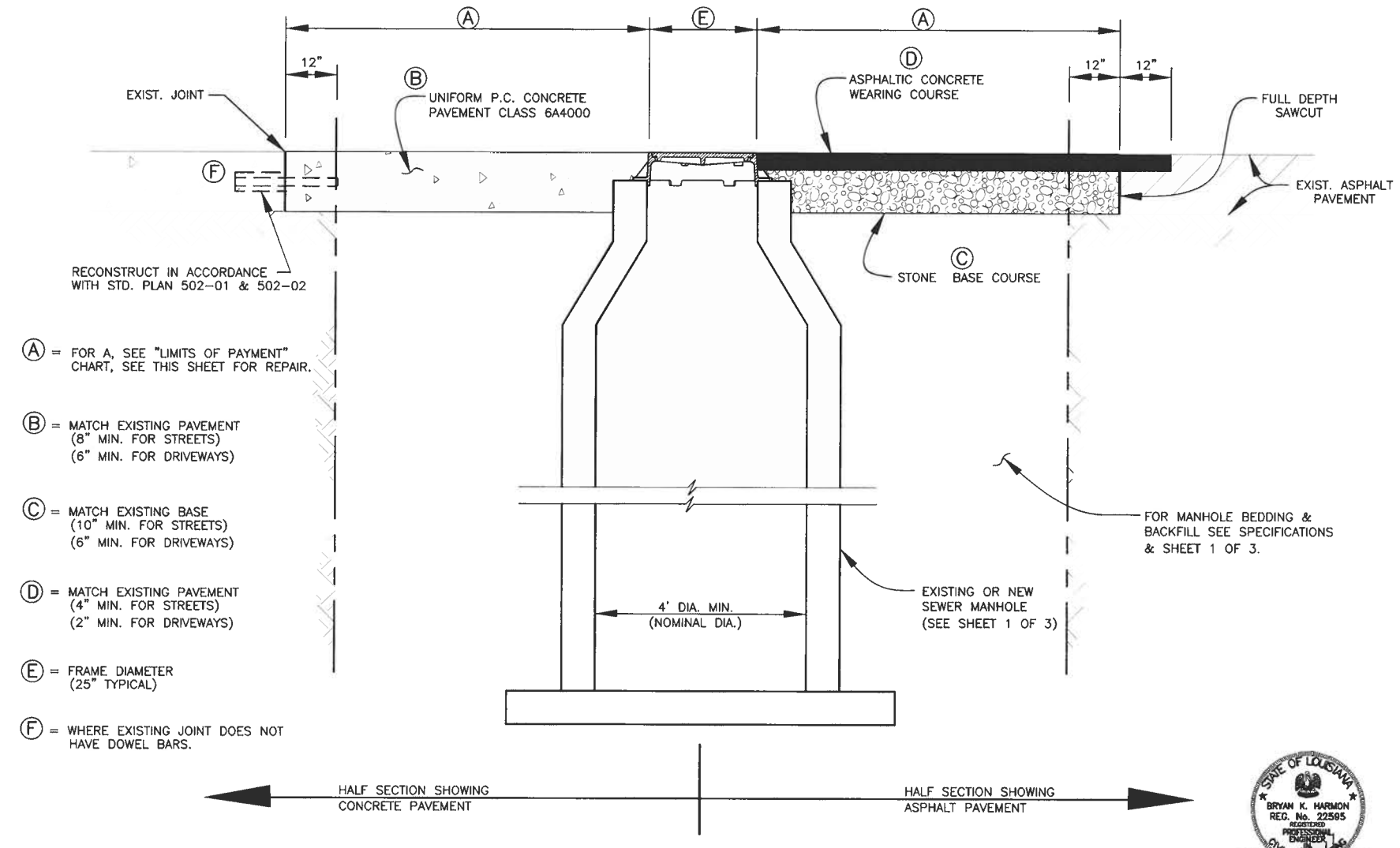


PAVEMENT REMOVAL (MANHOLE REPAIR)

NOT TO SCALE

LIMITS OF PAVEMENT	
MANHOLE REPAIR	A (FT.)
RESET MANHOLE FRAME	2
REPLACE MANHOLE FRAME AND COVER	2
REPLACE MANHOLE CONE	5
REPLACE MANHOLE	7

(2) CONTRACTOR TO REMOVE AND REPLACE CONCRETE PAVEMENT SLABS AS SHOWN. IF CONCRETE PAVEMENT JOINT (OR EDGE OF ROAD/BACK OF CURB) IS WITHIN 2', REMOVE PAVEMENT TO JOINT LINE. PAVEMENT TO CONFORM TO STANDARD CPS 502-01(STANDARD PAVEMENT DETAILS). REUSE EXISTING DOWELS IF NOT DAMAGE DDURING PAVEMENT REMOVAL. REPLACE ALL DAMAGED DOWEL WITH 1/2"x 2'-0" DEFORMED BARS ON 2'-0" CENTERS W/ EPOXY.



Ⓐ = FOR A, SEE "LIMITS OF PAYMENT" CHART, SEE THIS SHEET FOR REPAIR.

Ⓑ = MATCH EXISTING PAVEMENT
(8" MIN. FOR STREETS)
(6" MIN. FOR DRIVEWAYS)

Ⓒ = MATCH EXISTING BASE
(10" MIN. FOR STREETS)
(6" MIN. FOR DRIVEWAYS)

Ⓓ = MATCH EXISTING PAVEMENT
(4" MIN. FOR STREETS)
(2" MIN. FOR DRIVEWAYS)

Ⓔ = FRAME DIAMETER
(25" TYPICAL)

Ⓕ = WHERE EXISTING JOINT DOES NOT HAVE DOWEL BARS.

PAVEMENT REMOVAL (MANHOLE REPAIR)

NOT TO SCALE

STATE OF LOUISIANA
BRYAN K. HARMON
REG. No. 22595
REGISTERED
PROFESSIONAL
ENGINEER

AUGUST 1, 2011

STANDARD PLAN NO. 803-01	DATED AUGUST 1, 2011	SHEET NO. 3 OF 3

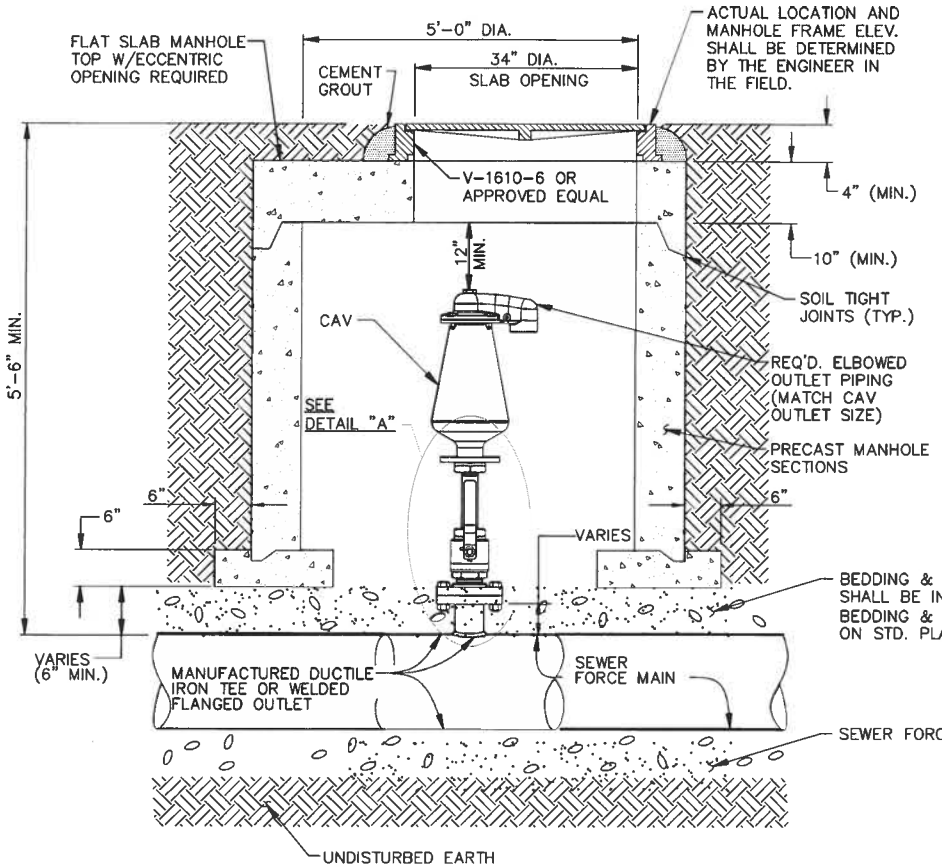
SANITARY SEWER MANHOLES

DATE	DESCRIPTION REVISIONS	BY

ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

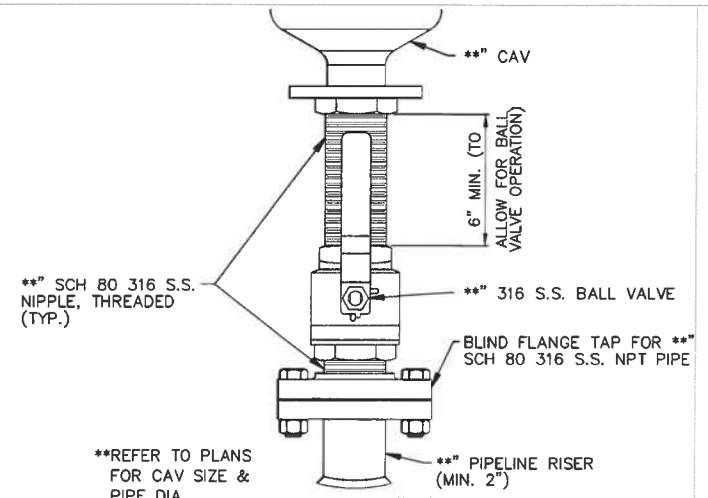
DESIGNED	DRAWN	CHECKED	APPROVED
A. SCHULZE	G. VANNICE	R. WRIGHT	B. HARMON

PROJECT NO.	SHEET
H.002320	804-01



FORCE MAIN COMBINATION AIR RELEASE/VACUUM VALVE ASSEMBLY

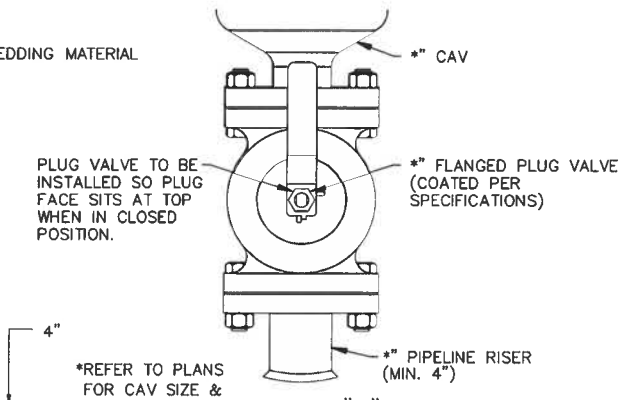
N.T.S.



DETAIL "A"

2" OR 3" COMBINATION AIR/VACUUM ASSEMBLY

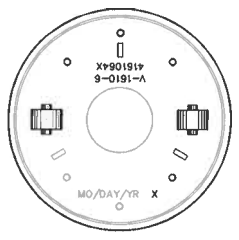
N.T.S.



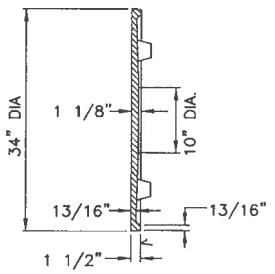
DETAIL "A"

4" OR 6" COMBINATION AIR/VACUUM ASSEMBLY

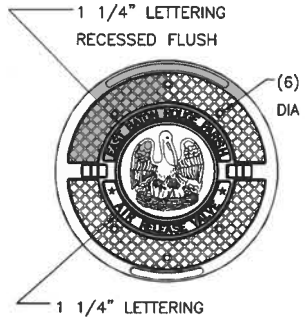
N.T.S.



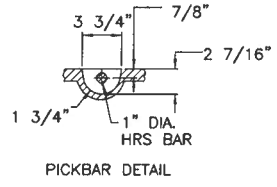
COVER BACK



COVER SECTION

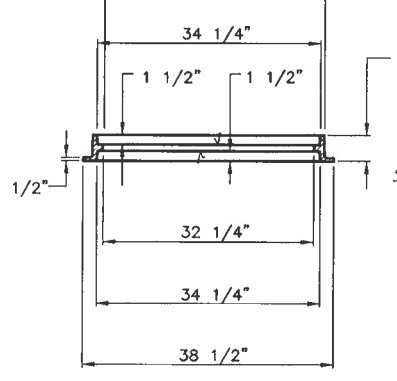


COVER FACE

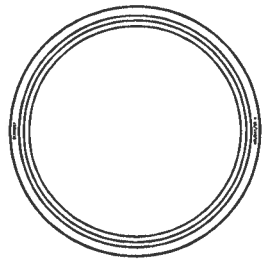


PICKBAR DETAIL

AIR RELEASE / VACUUM VALVE MANHOLE COVER W/ VENT HOLES & LOGO



RING SECTION

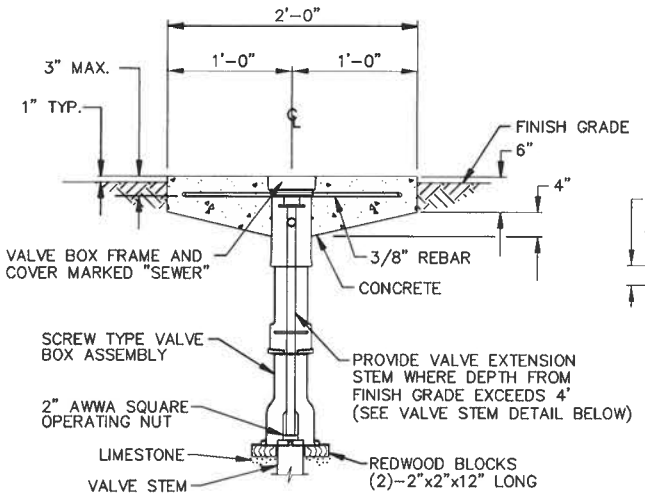


RING BOTTOM FLANGE

AIR RELEASE / VACUUM VALVE MANHOLE FRAME REVERSIBLE RING TYPE

NOTE:

ALL CAST IRON FRAME AND COVERS SHALL BE TRAFFIC BEARING FRAME AND COVERS SHALL MEET OR EXCEED ALL REQUIREMENTS OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS DESIGNATION : M306-05 STANDARD SPECIFICATION FOR DRAINAGE, SEWER, UTILITY, AND RELATED CASTINGS. THEY SHALL HAVE AN ENVIRONMENTALLY SAFE, WATER-BASE ASPHALTIC COATING WHICH IS NONTOXIC, NONFLAMMABLE, COLORLESS, AND DRIES TO A HARD BLACK FINISH.



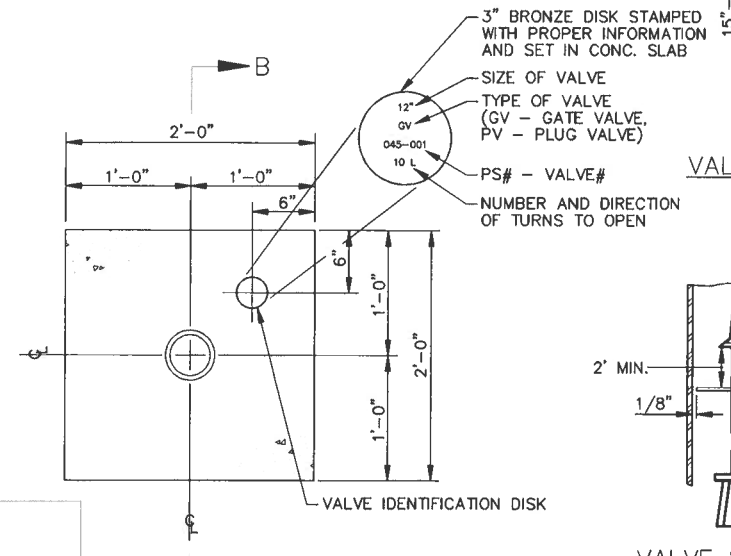
SECTION B-B

NOTES:

PROVIDE PROTECTIVE COATING TO EXTERIOR SURFACE OF VALVE BODY IN ACCORDANCE WITH SPECS.

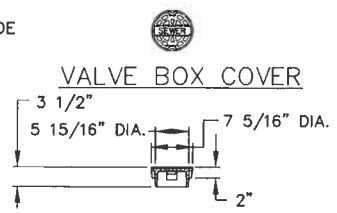
DETAIL OF VALVE BOX

SCALE: 1 1/2"=1'-0"

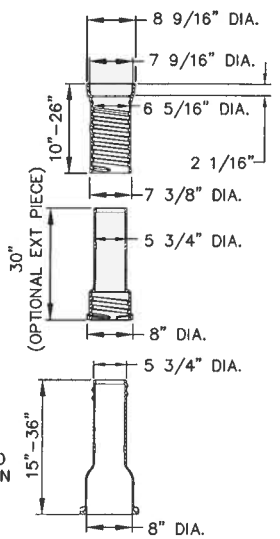


PLAN

SCALE: 1 1/2"=1'-0"



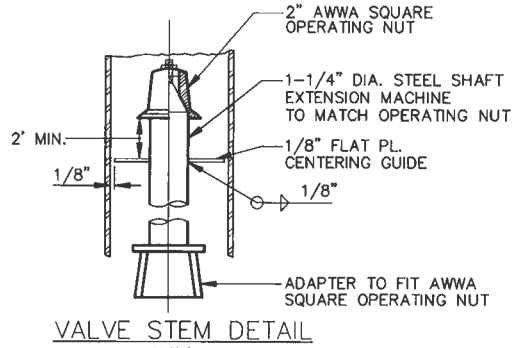
VALVE BOX COVER



VALVE BOX FRAME

SCREW TYPE VALVE BOX ASSEMBLY

SCALE: 1 1/2"=1'-0"



VALVE STEM DETAIL

N.T.S.

STATE OF LOUISIANA
ADAM M. SMITH
License No. 33278
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

AUGUST 25, 2016

DATE	DESCRIPTION REVISIONS	BY

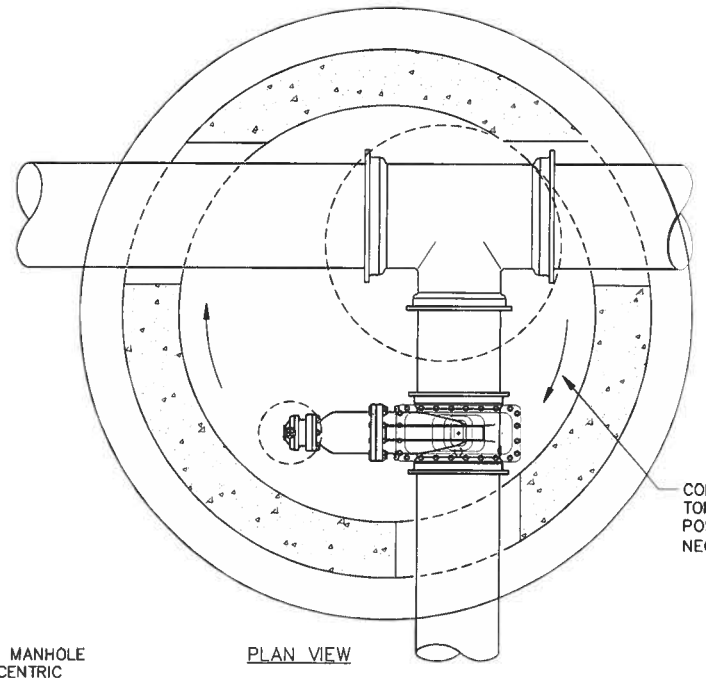
STANDARD PLAN NO.	DATED	SHEET NO.
804-01	AUGUST 1, 2011	1 OF 3

FORCE MAIN DETAILS

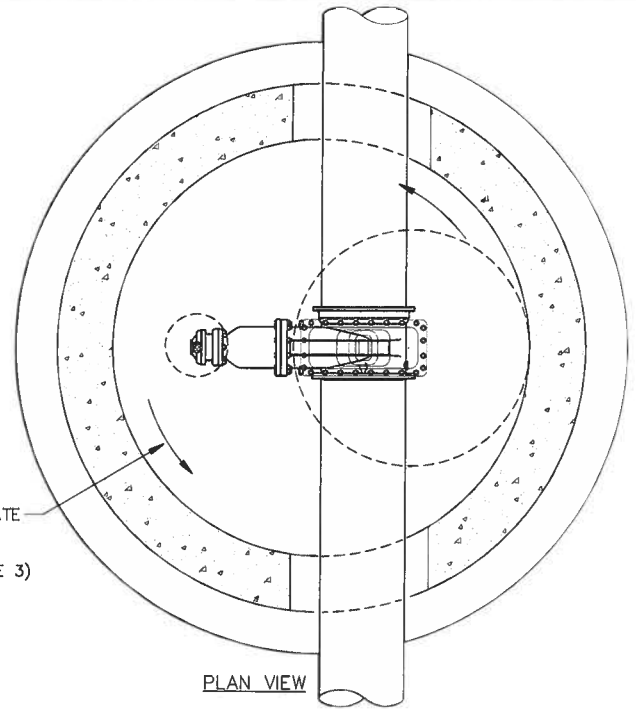
SEWER ENGINEERING DIVISION
DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
A. SCHULZE	G. VANNICE	N. COBB	A. SMITH

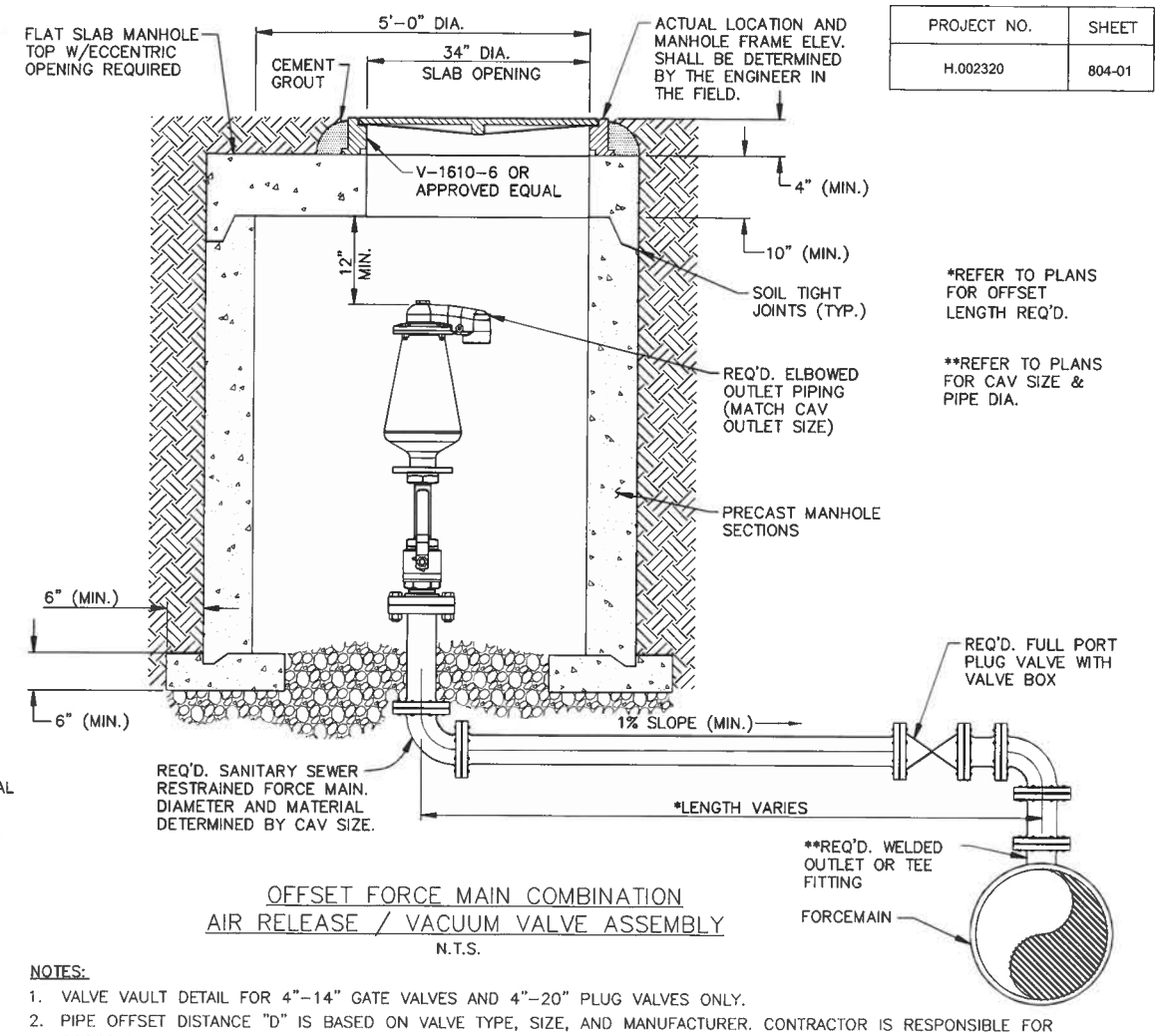
PROJECT NO.	SHEET
H.002320	804-01



PLAN VIEW



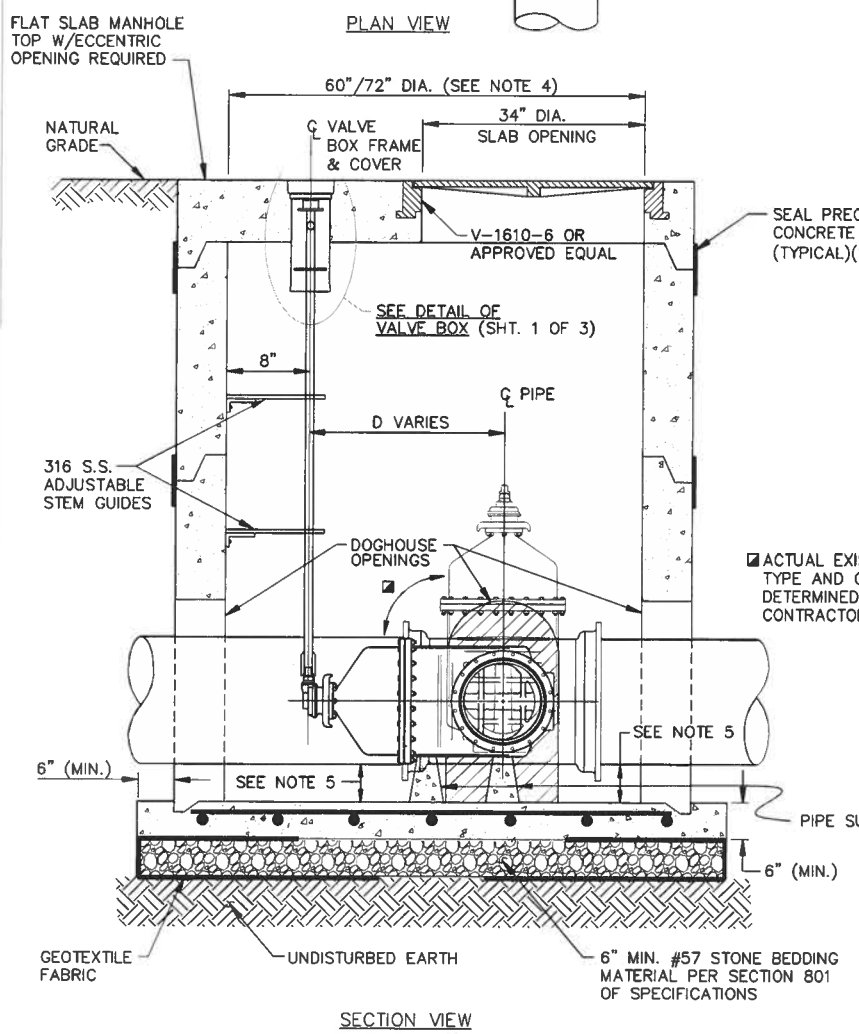
PLAN VIEW



*REFER TO PLANS FOR OFFSET LENGTH REQ'D.

**REFER TO PLANS FOR CAV SIZE & PIPE DIA.

OFFSET FORCE MAIN COMBINATION
AIR RELEASE / VACUUM VALVE ASSEMBLY
N.T.S.

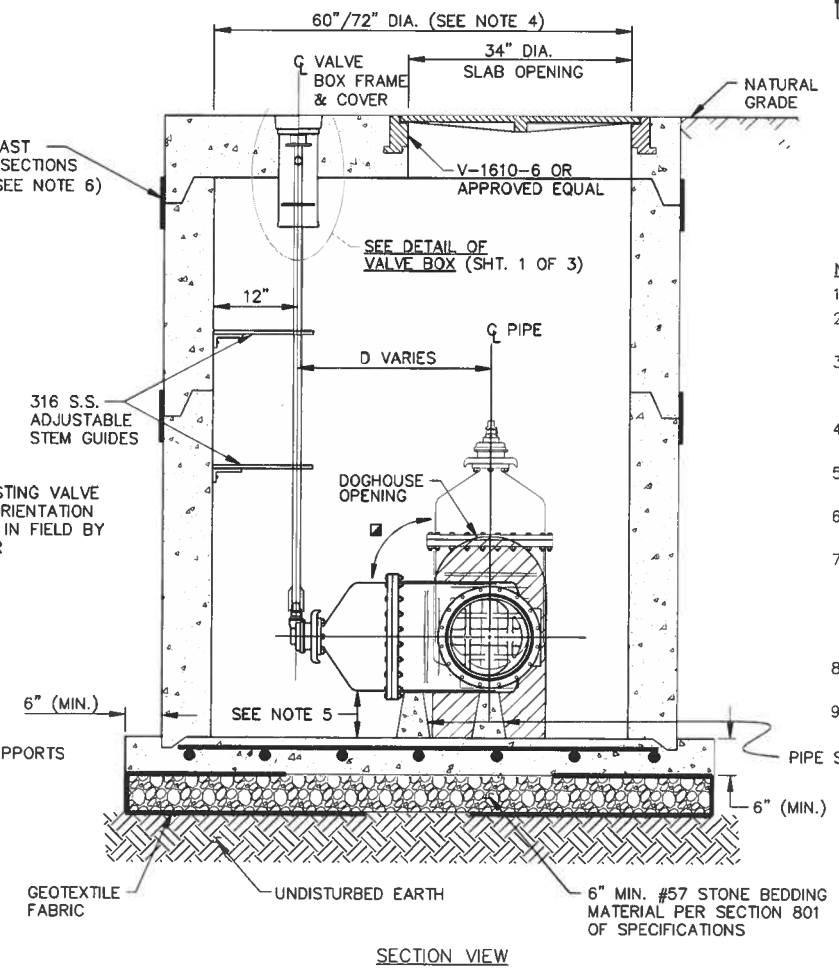


SEAL PRECAST CONCRETE SECTIONS (TYPICAL)(SEE NOTE 6)

ACTUAL EXISTING VALVE TYPE AND ORIENTATION DETERMINED IN FIELD BY CONTRACTOR

SECTION VIEW

ISOLATION VALVE VAULT (TEE BRANCH CONFIGURATION)
N.T.S.



SECTION VIEW

ISOLATION VALVE VAULT (IN-LINE CONFIGURATION)
N.T.S.

NOTES:

1. VALVE VAULT DETAIL FOR 4"-14" GATE VALVES AND 4"-20" PLUG VALVES ONLY.
2. PIPE OFFSET DISTANCE "D" IS BASED ON VALVE TYPE, SIZE, AND MANUFACTURER. CONTRACTOR IS RESPONSIBLE FOR COORDINATING VALVE MEASUREMENTS WITH PRECASTER FOR PROPER FINAL DIMENSIONS.
3. CONTRACTOR SHALL LOCATE VAULT OVER VALVE BASED ON ACTUAL VALVE ORIENTATION AND LINE CONFIGURATION TO ACHIEVE REQUIRED DISTANCE SHOWN FROM INTERIOR WALL TO THE CENTERLINE OF VALVE EXTENSION STEM. CONTRACTOR MAY ROTATE TOP SLAB AS NECESSARY TO HAVE VALVE STEM CENTERED IN VALVE BOX FRAME.
4. CONSTRUCT 60" DIA. VAULT FOR FORCE MAINS LESS THAN 24" DIA. AND FOR FORCE MAINS 24" AND LARGER CONSTRUCT 72" DIA. VAULT.
5. CLEARANCE FROM PIPE TO VAULT INVERT SHALL BE AS NECESSARY TO PROVIDE PROPER SUPPORTS FOR PIPE AND VALVE. CONTRACTOR MAY CHOOSE EITHER CONCRETE OR ADJUSTABLE SUPPORTS.
6. VAULT SECTIONS SHALL BE JOINED TOGETHER WITH FLEXIBLE GASKETS AND EXTERNALLY SEALED AT THE JOINTS IN ACCORDANCE WITH THE SPECIFICATIONS. REINFORCING FOR PRE-CAST SECTIONS AS PER ASTM C-478.
7. ALL CAST IRON FRAME AND COVERS SHALL BE TRAFFIC BEARING. FRAME AND COVERS SHALL MEET OR EXCEED ALL REQUIREMENTS OF THE LATEST AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS DESIGNATION: M306 STANDARD SPECIFICATION FOR DRAINAGE, SEWER, UTILITY, AND RELATED CASTINGS. THEY SHALL HAVE AN ENVIRONMENTALLY SAFE, WATER-BASE ASPHALTIC COATING WHICH IS NON-TOXIC, NONFLAMMABLE, COLORLESS, AND DRIES TO A HARD BLACK FINISH. CAST-IRON FRAMES SHALL BE CAST INTO AND FLUSH WITH THE VAULT FLAT TOP SLAB SURFACE.
8. VAULT BEDDING, BACKFILL, AND COMPACTION SHALL BE IN ACCORDANCE WITH THE SAME REQUIREMENTS FOR MANHOLES IN THE SPECIFICATIONS AND STANDARD PLAN 803-01.
9. CONTRACTOR SHALL NEATLY FILL DOGHOUSE OPENING AROUND PIPES WITH BRICK AND APPROVED NON-SHRINK GROUT TO ASSURE A WATERTIGHT SEAL.

STANDARD PLAN NO. 804-01 | DATED MAY 24, 2018 | SHEET NO. 2 OF 3

STATE OF LOUISIANA
ADAM M. SMITH
License No 33278
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

MAY 24, 2018

FORCE MAIN DETAILS

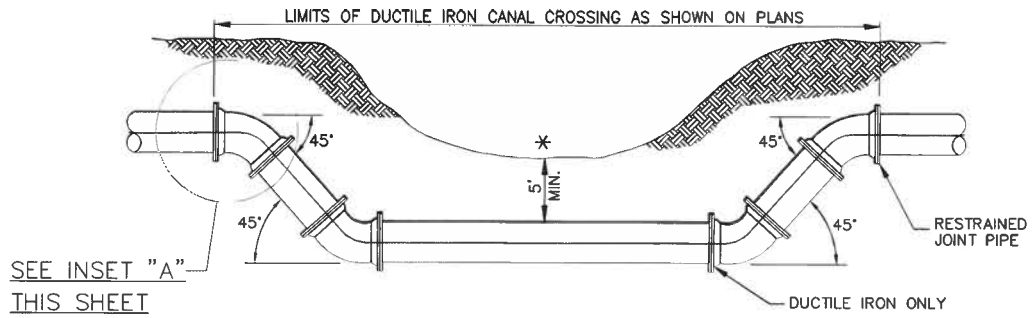
DATE	DESCRIPTION REVISIONS	BY

ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
J. CRAIN	S. CORTEZ	R. LAMBERT	A. SMITH

804-01

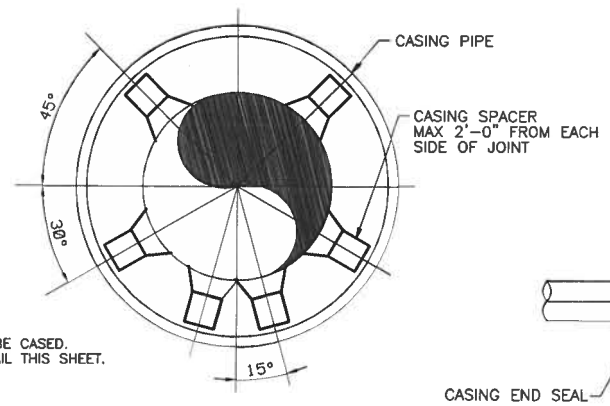
PROJECT NO.	SHEET
H.002320	804-01



TYPICAL CANAL &/OR UTILITY CROSSING

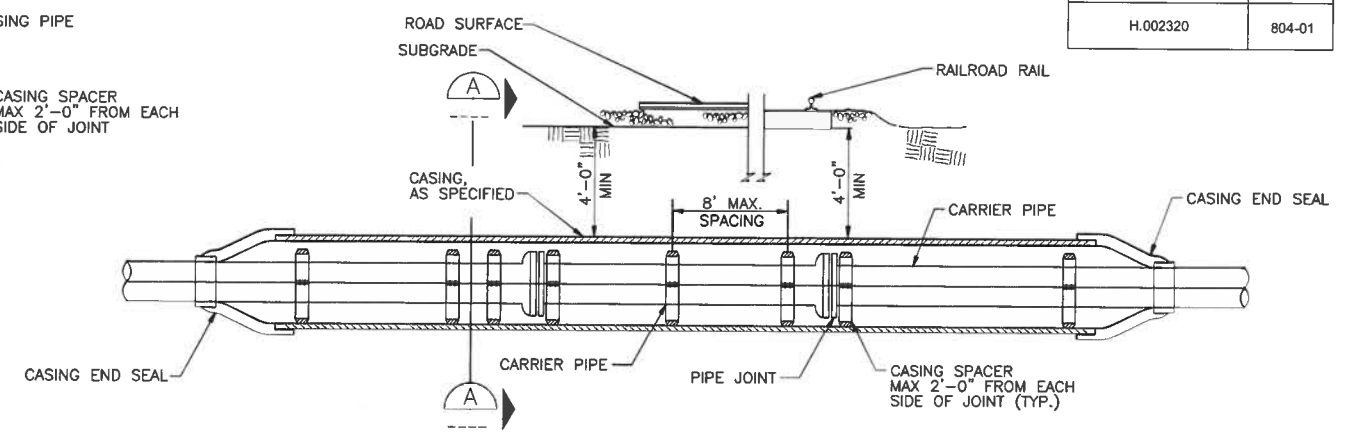
N.T.S.

* IF COVER IS LESS THAN 5', THE PIPE SHOULD BE CASED. REFER TO THE JACKED AND BORED CASING DETAIL THIS SHEET.



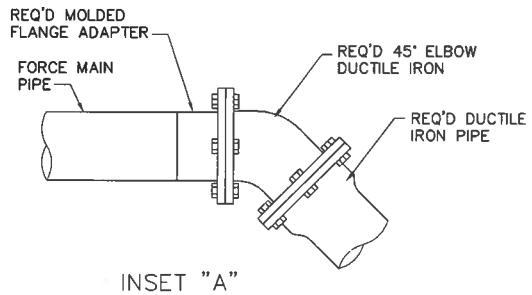
SECTION A

NTS



JACKED AND BORED CASING DETAIL

N.T.S.

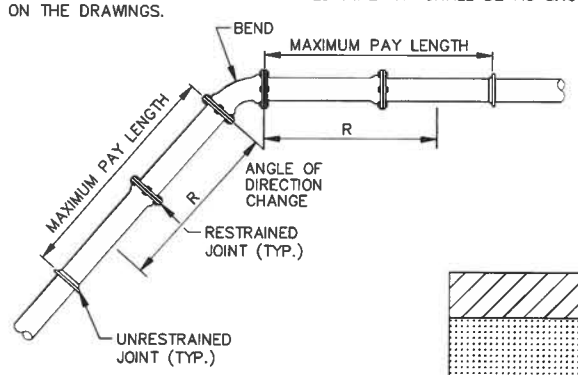


INSET "A"

DUCTILE IRON PIPE TO POLYETHYLENE PIPE CONNECTION

RESTRAINED JOINT NOTES:

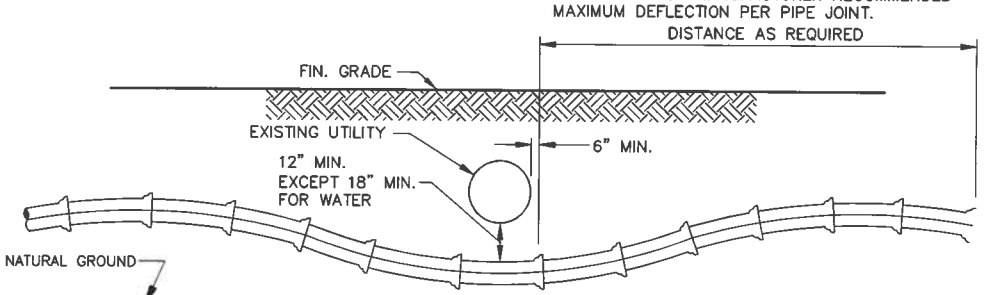
1. RESTRAINED JOINT PIPE SHALL BE USED AT ALL BENDS.
2. THE REQUIRED LENGTH OF RESTRAINED PIPE "R" SHALL BE AS SHOWN ON THE DRAWINGS.



FORCE MAIN BENDS

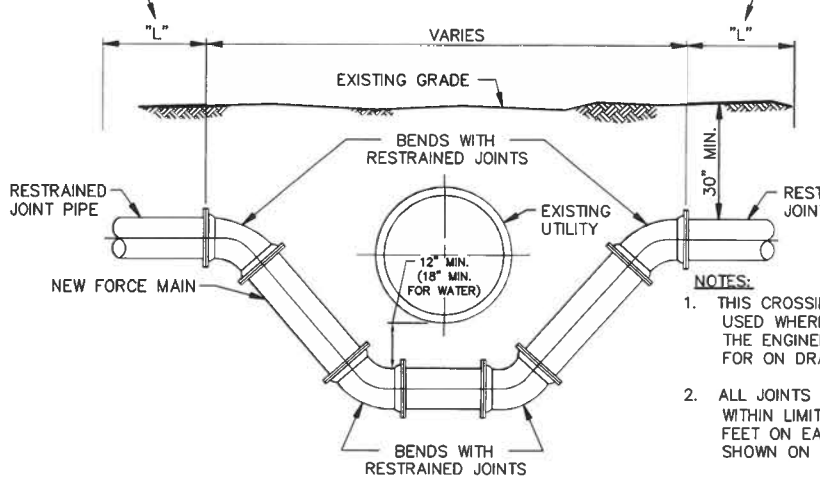
N.T.S.

CONSTRUCT UNIFORM PIPE DEFLECTION – NOT TO EXCEED 75% OF MANUFACTURER RECOMMENDED MAXIMUM DEFLECTION PER PIPE JOINT.



DEFLECTION TYPE UTILITY CROSSING

N.T.S.

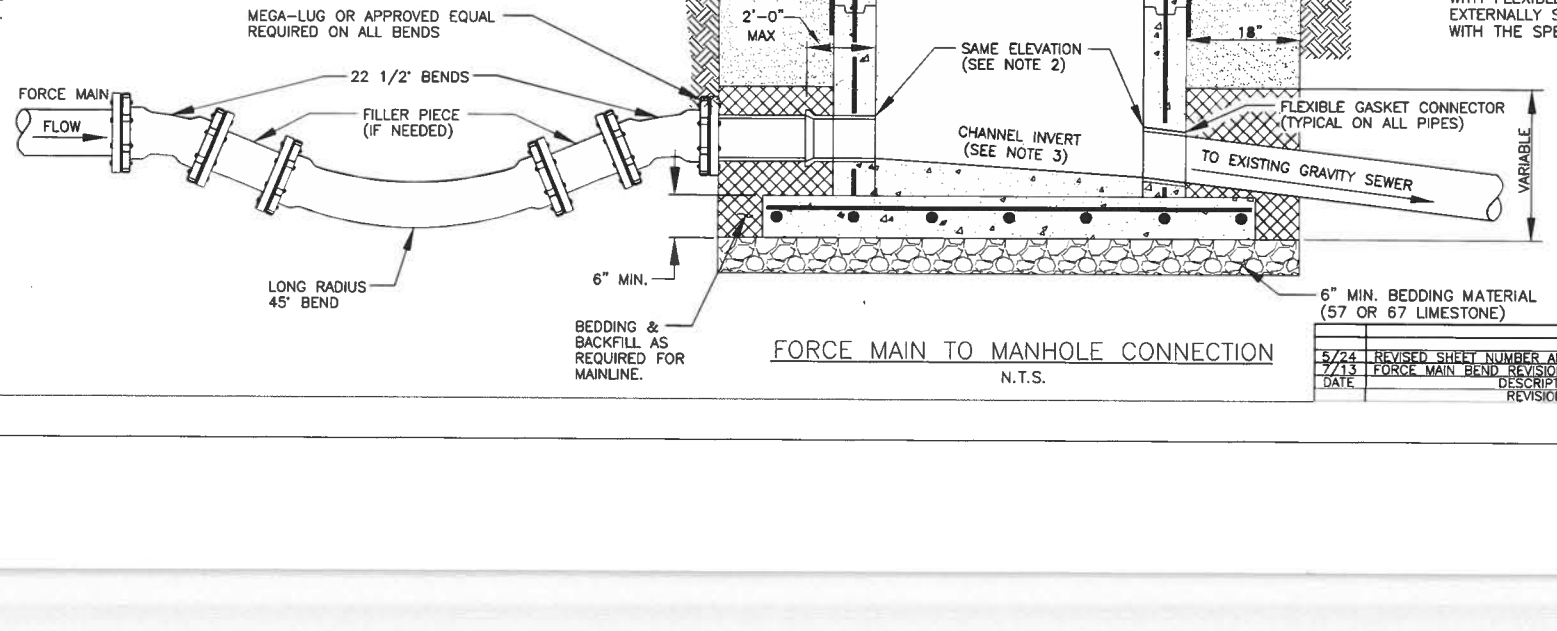


TYPICAL FORCE MAIN ADJUSTMENT

N.T.S.

NOTES:

1. THIS CROSSING SHALL BE USED WHERE DIRECTED BY THE ENGINEER OR CALLED FOR ON DRAWINGS.
2. ALL JOINTS SHALL BE RESTRAINED WITHIN LIMITS OF ADJUSTMENT, PLUS "L" FEET ON EACH END OF ADJUSTMENT, AS SHOWN ON THE DRAWINGS.



FORCE MAIN TO MANHOLE CONNECTION

N.T.S.

NOTES:

1. COAT INTERIOR OF MANHOLE WITH APPROVED EPOXY COATING PER SPECIFICATION SECTION 822.
2. ELEVATION OF FORCE MAIN CROWN SHALL BE AT SAME ELEVATION AS THE GRAVITY SEWER CROWN.
3. PROVIDE SMOOTH CHANNEL FROM FORCE MAIN TO GRAVITY SEWER.
4. MANHOLE SECTIONS SHALL BE JOINED TOGETHER WITH FLEXIBLE WATERTIGHT RUBBER GASKETS AND EXTERNALLY SEALED AT THE JOINTS IN ACCORDANCE WITH THE SPECIFICATIONS.

STATE OF LOUISIANA
ADAM M SMITH
License No 33278
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

MAY 24, 2018

DATE	DESCRIPTION REVISIONS	BY
5/24	REVISED SHEET NUMBER AND TITLE	A.M.S.
7/13	FORCE MAIN BEND REVISION	A.S.

STANDARD PLAN NO.	DATED	SHEET NO.
804-01	AUGUST 1, 2011	3 OF 3

FORCE MAIN DETAILS

ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
A. SCHULZE	G. VANNICE	R. WRIGHT	A. SMITH

6103631

GENERAL PROVISIONS

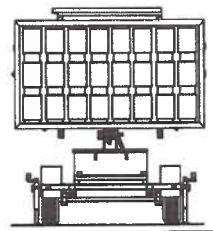
- All temporary traffic control (TTC) devices used shall be in accordance with the Louisiana Standard Specifications for Roads and Bridges, the MUTCD, and shall meet the NCHRP Report 350 or MASH requirements for Test Level 3 devices where applicable.
- Materials used for TTC shall be in accordance with the Louisiana Standard Specifications for Roads and Bridges and, when applicable, the LADOTD AML.
- Placement of TTC devices shall not commence without the approval of the Engineer and until work is about to begin, unless they are covered.
- No lane closures, lane shifts, diversions or detours shall occur without the approval of the Engineer.
- Responsibility is hereby placed upon the contractor for the installation, maintenance and operation of all TTC devices called for in these plans or required by the Engineer for the protection of the traveling public as well as all LADOTD and construction personnel.
- The contractor shall also be responsible for the maintenance of all permanent signs, pavement markings, and traffic signals left in place as essential to the safe movement and guidance of traffic within the project limits unless noted in the plans.
- The DTOE shall serve as a technical advisor to the Engineer for all traffic control matters.
- The Chief Construction Engineer or his appointed designee shall approve all signs and situations not addressed in the plans based on the recommendations of the Project Engineer and the DTOE. All changes shall be noted in all project traffic control diaries.
- The Chief Construction Engineer or his appointed designee shall approve all design speeds of diversions or shifts, if it differs from design plans, based on the recommendations of the Project Engineer and the DTOE.
- All temporary traffic control plans shall comply with the Transportation Management Plan.
- Any additional signs shown in the MUTCD and required by the Engineer shall be installed under Item 713-01-00100.
- Neither work activity nor storage of equipment, vehicles, TMAs, or materials shall occur within the buffer space.
- When a work area has been established on one side of the roadway only, there shall be no conflicting operations or parking on the opposite shoulder within 500 feet of the work area.
- A lighting plan shall be submitted to the Engineer 30 days prior to night work for approval. (See section 105.20 of the Louisiana Standard Specifications for Roads and Bridges.)
- Parking of vehicles or unattended equipment or storage of materials, within the clear zone shall not be permitted unless protected by guardrail or barriers. If the clear zone is not defined on the plan sheets, the Engineer shall verify.
- Immediately upon removal of existing guardrail, the contractor shall install and maintain an NCHRP Report 350 or MASH approved device to protect the blunt end of the bridge or column until new guardrail is installed. After removal of the existing guardrail, new guardrail should be installed within seven (7) days. On non-NHS routes with shoulders less than 8 feet wide: If an NCHRP 350 Report Test Level 3 or MASH device is required out the field conditions of the roadway cannot support a Test Level 3 device, then a Test Level 2 device can be substituted in its place upon approval by the Engineer. If utilized, a TMA is allowed for a maximum of 72 hours.
- All costs associated with crash devices are to be included in Item 713-01-00100.
- Sight distance should be considered when placing traffic control devices.
- On all mainline Interstates, a minimum of 1.5 feet of paved shoulder on the left and right side shall be maintained at all times.
- On Interstates, a minimum of 11 foot lanes shall be maintained. On all other roadways, a 10 foot minimum travel lane should be maintained where practical.
- TTC Standards are not drawn to scale.
- The contractor shall develop an internal traffic control plan approved by the Engineer prior to each phase.
- Truck restrictions such as (but not limited to) restricting lanes, oversize loads or times of travel, may be required for narrow lanes or other field conditions.

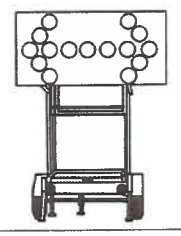
PAVEMENT MARKINGS (see AML)

- All pavement markings within the limits of the project or adjacent to the project limits that are in conflict with the project signing or the required traffic movements shall be removed from the pavement by blast cleaning or grinding. (Existing striping shall not be painted over with black paint or covered with tape.)
- If special pavement markings are needed, they shall be reflectorized, removable and accompanied by the proper signage.
- Temporary Raised Pavement Markers may be added to supplement temporary striping in areas of transition, in tapers, in diversions and in other areas of need as shown in the plans or as directed by the Engineer.
- Materials and placement of temporary pavement markings shall conform to Section 713 of the Louisiana Standard Specifications for Roads and Bridges. If no pay item exists for temporary markings, they shall be installed under item 713-01-00100.
- Temporary markings installed in the permanent configuration shall comply with LADOTD pavement marking standard plans, MUTCD and/or the permanent striping plans.

PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS)

- PCMS shall be used on all Interstate Highways. PCMS shall be used on all other roadways (where space is available) with an ADT greater than 20,000.
- When used in advance of a lane closure or a lane shift, the PCMS should be placed on the right hand side of the road a minimum distance of 2 miles in advance of the taper for interstates and to be determined by the Engineer on other highways.
- For interstates and multi-lane highways, if vehicles are queuing beyond the 2 mile PCMS, an additional PCMS should be placed on the right hand side of the road approximately 5 miles in advance of the taper or at the end of the queue, whichever is greater.
- PCMS messages shall be approved by the DTOE. Messages shall be no more than 3 lines and 2 screens.
- Messages shall display only traffic operational, regulatory, warning, and guidance information. PCMS messages shall not display advertising or safety messages. Messages should only convey information concerning the problem/situation, location, and recommended driver action.
- PCMS should be placed as far from the traveled lane as possible. They shall be shielded by guardrail or barriers. If this is not possible they shall be delineated with a min. 3 drum taper spaced at 20ft with a 4th drum alongside the PCMS.
- If the PCMS encroaches on the improved shoulder then the contractor shall install a shoulder closure.
- When the PCMS is not displaying a work zone appropriate message pertaining to the ongoing construction project it shall be shielded by guard rail or barriers, or removed from the clear zone.





STATE OF LOUISIANA
GARY N. LABLANC
REG. NO. 28233
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
6-27-18

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

SPEED LIMITS

- The Engineer may approve a 10 mph drop in the speed limit for posted speeds of 45 mph or greater and for any construction, maintenance or utility operation that requires one or more of the following:
  - (A) The condition of the traveled way is degraded due to milled surfaces or uneven travel lane lines greater than 1.5 inches.
  - (B) Work is in progress in the immediate vicinity of the travel way requiring lane closures or lane width reductions less than 11 feet.
  - (C) Workers present on the shoulder within 2 feet of the edge of the traveled way without barrier protection.
- The reduced speed zone shall only apply to those portions of the project limits affected. The Engineer may allow SPEED LIMIT WHEN FLASHING signs to supplement reduced speed zones.
- If the speed limit is reduced, speed limit signs shall be placed:
  - (A) beyond major intersections;
  - (B) at one mile intervals in rural areas;
  - (C) at half mile intervals in urban areas.
- At the end of the reduced speed zone, a speed limit sign displaying the original speed limit prior to construction shall be installed.
- For all other speed limit reductions not listed above, the Project Engineer and the DTOE shall recommend the speed reduction to the Chief Construction Engineer or his appointed designee for approval.
- If the speed limit is reduced more than 10 mph, placement of the signs shall be re-evaluated according to the MUTCD.

FLASHING ARROW BOARDS

- All Flashing Arrow Boards shall be 4 feet by 8 feet and Type C.
- Flashing Arrow Boards should be placed on the shoulder. When there is no shoulder or median area, the arrow board shall be placed within the closed lane behind the channelizing devices and as close to the beginning of the taper as practical.
- Flashing arrow boards shall be delineated with retroreflective TTC devices.
- At no time shall the arrow board encroach in the traveled way. When Flashing Arrow Board signs are not being used, they shall be shielded by guard rail or barriers, or removed.
- Arrow boards shall only be used for lane reduction tapers and shall not be used for lane shifts.

ABBREVIATIONS

AASHTO	American Association of State Highway and Transportation Officials
ADT	Average Daily Traffic
AGCI	Associated General Contractors of America
AML	Approved Materials List
ANSI	American National Standards Institute
ATSSA	American Traffic Safety Services Association
B.O.P.	Beginning of Project
DTOE	District Traffic Operations Engineer
E.O.P.	End of Project
LADOTD	Louisiana Department of Transportation and Development
MASH	AASHTO Manual for Assessing Safety Hardware
MUTCD	Manual on Uniform Traffic Control Devices
NCHRP	National Cooperative Highway Research Program
NHS	National Highway System
PCMS	Portable Changeable Message Sign
TMA	Truck Mounted Attenuator
TMC	Traffic Management Center
TTC	Temporary Traffic Control
TTC Standards	Temporary Traffic Control Standard Plans

SHEET NUMBER | PARISH | CONTROL SECTION | STA. I.E. PROJECT
DESIGNED G. LEBLANC | CHECKED J. COLVIN | DETAILED C. FAKOURI | CHECKED G. LEBLANC | SERIES NUMBER
NO. | DATE | REVISION OR CHANGE ORDER DESCRIPTION | BY | DATE 7/2/18
APPROVED BY CHIEF ENGINEER:

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

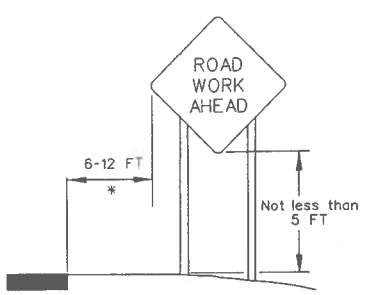
TEMPORARY TRAFFIC CONTROL
GENERAL NOTES SHEET
TTC-00 (A)

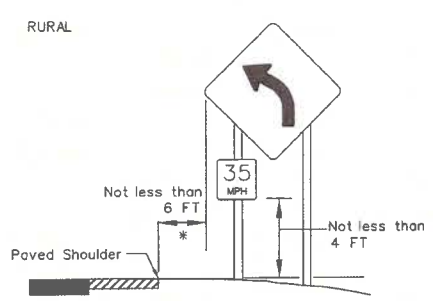
DOTD TRAFFIC ENGINEERING

61036317

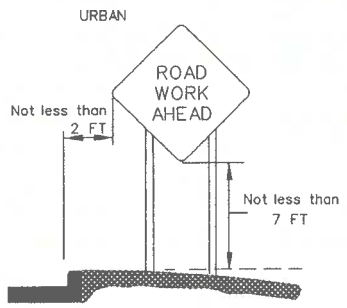
SIGNS

- All signs used for temporary traffic control shall follow the plans, the LADOTD TTC Standards and the MUTCD.
- Signs shown in the TTC illustrations are typical and may vary with each specific condition.
- One Type B High Intensity light shall be used to supplement the first sign (or pair of signs) that gives warning about a lane closure during nighttime operations (See AML).
- Mesh rollup signs shall not be allowed on any project.
- Contractor shall use caution not to damage existing signs which remain in place. Any LADOTD signs damaged by work operations shall be replaced by the contractor under item 713-01-00100.
- All signs (permanent and temporary) shall be removed or completely covered with a strong, lightweight, opaque material when no longer applicable. (Burlap is not an acceptable material to cover signs).
- At no time shall signs warning against a particular operation be left in place once the operation has been completed or where the condition has been removed.
- Warning signs used for temporary traffic controls shall meet the following guidelines unless otherwise noted in the plans:
  - (A) size shall be 48 inches by 48 inches.
  - (B) see the Louisiana Standard Specifications for Roads and Bridges and the AML for sheeting information.
  - (C) lateral distance of signs shall be a minimum of 6 feet from the edge of shoulder or edge of pavement if no shoulder exists and 2 feet from the back of curb in urban areas (see diagram).
- When portable sign frames are not in use, they shall be moved to an area inaccessible to traffic and not visible to the driver.
- Left side mounted signs will not be required for roadways with a center left turn lane and for undivided roadways.
- Vinyl roll up signs may be used if work zone is in place for 12 hours or less, there are no more than 2 lanes in each direction and if signs meet all size, color, retroreflectivity and NCHRP 350 Report or MASH requirements.
- All signs shall be visible to the drivers (i.e. no obstructions such as on street parking or other traffic control devices shall block the sign).
- On divided highways, signs shall be placed on the right and the left as shown on the TTC standards.
- 1 foot portable sign stands may be used if the work zone is in place for 14 hours or less and there are no more than 2 lanes in each direction.
- Sign posts:
  - -Signs measuring 10 square feet or less shall be mounted on 1 rigid post
  - -Signs over 10 square feet shall be mounted on 2 rigid posts
  - -Signs over 20 square feet shall be mounted on at least 3 rigid posts
- Rigid sign supports shall be driven to a minimum depth of 3 feet. (If splicing is required, see Allowable Lap Splice U-channel Post.)
- For sign height, see the Rural and Urban diagrams:





* If lateral distance is not practical, the sign may be placed no less than 2 feet.

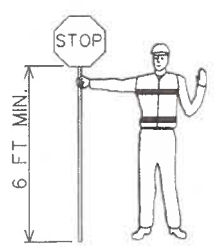


LANE CLOSURES

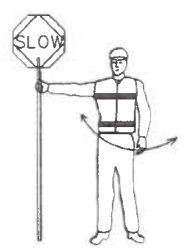
- All proposed lane, road or shoulder closures shall be reviewed by the DTOE and approved by the Engineer.
- Two lane, two-way highways shall have a maximum work area of two miles; all other roadways shall have a four mile maximum work area.
- A queue analysis shall be performed prior to approval of lane closures on all Interstates according to Section 6A.1 of the Traffic Engineering Manual.
- Closure plans and times shall be turned in to the Engineer for review according to the following:
  - (A) 5 working days minimum if traffic control plan has been approved or is contained in the plans.
  - (B) 10 working days minimum and a traffic control plan must be submitted for lane closures not addressed in the plans.
- Weekly updates to the DTOE, Project Engineer, the LADOTD TMC operator and the regional TMC operator (if applicable) will be required for all ongoing lane closures to update the closure status.
- Daily updates to the DTOE, Project Engineer and TMC operator (if applicable) will be required for all projects where active closures are in place.

FLAGGERS

- All flaggers shall be qualified.
- The contractor shall be responsible for training or assuring that all flaggers are qualified to perform flagging duties.
- A Qualified Flagger is one that has completed courses such as those offered by ATSSA or other courses approved by the LADOTD Work Zone Task Force. The contractor shall be responsible for getting the flagger course approved.
- When utilized, a flagger shall use a minimum 18 inch octagonal shape sign on a minimum 6 foot stop/slow paddle and wear ANSI Class 2 Lime Green vest during day time operations and ANSI Class 3 Lime Green ensemble during night operations.
- In all flagging operations, the flagger must be visible from the flagger advance warning sign.
- Flaggers shall not be used on the Interstate.

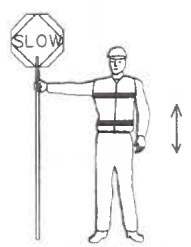


To STOP Traffic



Traffic Proceed

Use of Hand Sign



To Alert & SLOW Traffic

Use of Hand Sign

PEDESTRIAN CONSIDERATIONS

- If the TTC zone affects the movement of pedestrians, adequate pedestrian access and walkways shall be provided either through the TTC zone or a designated alternate route.
- Pedestrians should be provided with a convenient and accessible path that replicates as nearly as practical the most desirable characteristics of the existing sidewalk(s) or footpath(s).
- Advance notification of sidewalk closures shall be provided by the maintaining agency.

REFERENCES

- The contractor shall be responsible for understanding all rules and requirements in the current edition of the following documents:

1) Louisiana Standard Specifications for Roads and Bridges. http://www.dotd.la.gov/highways/specifications/
2) Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD). http://mutcd.fhwa.dot.gov/
3) LADOTD Approved Materials List (AML) Manual. http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Materials_Lab/Pages/Menu_QPL.aspx
4) LADOTD Traffic Engineering Manual http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Traffic_Engineering/Misc%20Documents/Traffic%20Engineering%20Manual.pdf
5) National Cooperative Highway Research Program (NCHRP) Report 350: "Guidelines for Work Zones Traffic Control Devices". http://onlinepubs.trb.org/Onlinepubs/nchrp/nchrp_rpt_350-a.pdf
6) NCHRP Report 475: "A Procedure for Assessing and Planning Nighttime Highway Construction and Maintenance". http://onlinepubs.trb.org/Onlinepubs/nchrp/nchrp_rpt_475.pdf
7) NCHRP Report 476: "Guidelines for Design and Operation of Nighttime Traffic Control for Highway Maintenance". http://onlinepubs.trb.org/Onlinepubs/nchrp/nchrp_rpt_476.pdf
8) NCHRP Report 498: "Illumination Guidelines for Nighttime Highway Work". http://onlinepubs.trb.org/Onlinepubs/nchrp/nchrp_rpt_498.pdf
9) American Association of State Highway and Transportation Officials (AASHTO) Roadside Design Guide.
10) American Traffic Safety Services Association (ATSSA) Quality Guidelines for Work Zone Traffic Control Devices and Features.
11) U.S. Department of Transportation Federal Highway Administration Traffic Control Handbook for Mobile Operations at Night. http://www.dot.state.il.us/blr/1023.pdf

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

SHEET NUMBER | PARISH | CONTROL SECTION | STATE PROJECT
DESIGNED G. LEBLANC | DETAILED C. FAKOURI | SERIES NUMBER
CHECKED J. COLVIN | CHECKED G. LEBLANC
BY: | DATE: 7/2/18
REVISION OR CHANGE ORDER DESCRIPTION | NO. | DATE | APPROVED, DEPT. ENGINEER

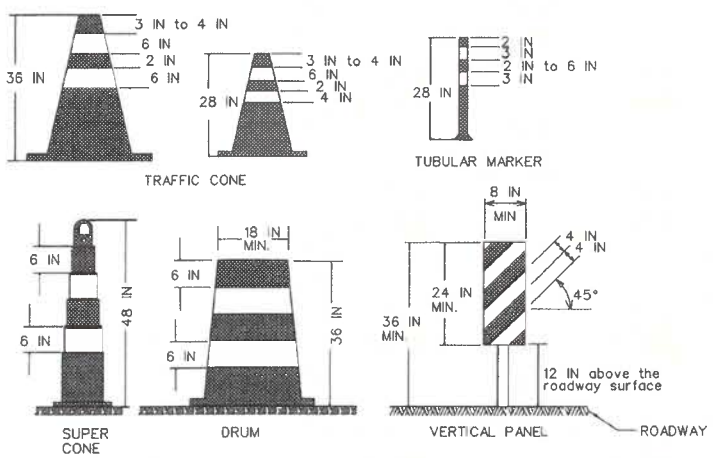
STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

TEMPORARY TRAFFIC CONTROL
GENERAL NOTES SHEET
TTC-00 (B)

DOTD TRAFFIC ENGINEERING

CHANNELIZING DEVICES

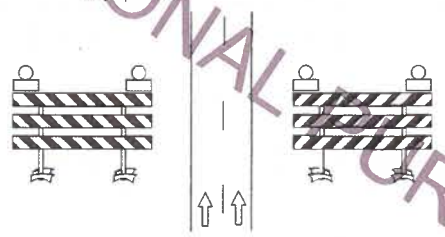
- The following devices may be used as channelizing devices: Tubular Markers, Vertical Panels, Cones, Drums and Super Cones.
- 28 inch traffic cones are not allowed on:
  1) Interstates
  2) Highways with speeds greater than 40 mph.
- During nighttime operations, 28 inch and 36 inch cones are not allowed.
- Retroreflective material pattern used on super cones shall match that used on drums.
- Tangent Areas:
  - A) Standard Spacing: See Standard Device Spacing and Buffer Space table.
  - B) Daylight Operations: Drums and super cones are spaced at standard spacing. All other devices are at ½ standard spacing.
  - C) Nighttime Operations: Drums and supercones at standard spacing are the only devices allowed.
- Taper Areas:
  - A) Standard Spacing: See Standard Device Spacing and Buffer Space table.
  - B) Daylight Operations: Drums are spaced at standard spacing. All other devices are ½ standard spacing.
  - C) Nighttime Operations: Drums (at standard spacing) are the only devices allowed.
- Type C steady burn lights shall be used on all channelizing devices in the taper as well as the first two devices in the tangent at night, (see the AML).
- Typical channelizing device lateral placement (do not include when it is used as a divider for opposing directions of traffic) shall be 2 feet off the lane line in the closed lane or shoulder.
- Devices may be adjusted laterally to accomodate ongoing work in the immediate vicinity but must be returned to the closed lane after the work activity has moved.
- Channelizing devices on the lane line shall be of the same type.
- Channelizing devices in each taper shall be of the same type.



ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

TYPE III BARRICADES

- Only Type III Barricades shall be used.
- All barricades shall use Type 3 High Intensity Sheeting on both sides of the barricade.
- All barricades shall be a minimum of 8 feet in length and must meet NCHRP Report 350 or MASH requirements.
- When used for overnight closures, two Type B High Intensity Lights shall supplement all barricades that are placed in a closed lane or that extend across a highway. Two Type A Low Intensity Lights may be used in urban areas if approved by the Engineer (See AML).
- When signs and lights are to be mounted to a barricade, they must meet NCHRP Report 350 or MASH requirements.
- A truck with a TMA may be substituted for a barricade when workers are present.
- Barricades shall be placed:
  - (A) at the beginning of a closed lane or shoulder and at 1,000 foot intervals where no active work is ongoing and the lane must remain closed. A minimum of 2 barricades shall be placed if the lane or shoulder closure is less than 2,000 feet. (One barricade shall be placed at the beginning of the lane closure after the buffer space and one shall be placed in the middle of the lane closure.)
  - (B) before each or group of unfilled holes or holes filled with temporary material.
  - (C) before uncured concrete.
  - (D) in the closed lane on each side of every intersection and crossover. (Do not block sight distance.)
  - (E) in front of piles of material (dirt, aggregate, broken concrete), culverts and equipment which is near the work zone.



TTC for DROP-OFFS

NON-INTERSTATE

Average Drop-off	Current Posted Speed (Prior to Construction)	
	> 45 MPH	≤ 45 MPH
≤ 3 IN	Low Shoulder Sign (Optional)	Low Shoulder Sign (Optional)
> 3 IN ≤ 6 IN	Shoulder Drop Off Sign & Edge Lines or Shoulder Drop Off Sign & Channelizing Device	Shoulder Drop Off Sign
> 6 IN ≤ 10 IN	No Shoulder Sign, Edge Lines & Vertical Panel	No Shoulder Sign & Channelizing Device
> 10 IN	Concrete Barrier (if drop off is < 12 FT from edge of travel lane) & Edge Lines	No Shoulder Sign & Vertical Panel

INTERSTATE

Average Drop-off	
≤ 2 IN	Low Shoulder Sign (Optional)
> 2 IN ≤ 6 IN	Shoulder Drop Off Sign & Edge Lines or Shoulder Drop Off Sign & Channelizing Device
> 6 IN	Concrete Barrier (if drop off is < 12 FT from edge of travel lane), Shoulder Drop Off Sign, & Edge Lines

- If a portable concrete barrier will be required then the deflection shall be considered in the design.
- For Interstate ramps, refer to non-interstate drop offs.

STATE OF LOUISIANA GARY V. LEBLANC REG. No. 28220 REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING 6-27-18

STANDARD DEVICE SPACING AND BUFFER SPACE

SPEED LIMIT (prior to construction)	MERGING TAPER LENGTH (L) Lane Width (FT)				STANDARD DEVICE SPACING IN FEET		BUFFER SPACE
MPH	9	10	11	12	Along Taper	Along Tangent	FT
25	94	105	115	125	20	40	155
30	135	150	165	180	30	60	200
35	184	205	225	245	35	70	250
40	240	267	294	320	40	80	305
45	405	450	495	540	40	80	360
50	450	500	550	600	40	80	425
55	495	550	605	660	40	80	495
60	540	600	660	720	40	80	570
65	585	650	715	780	40	80	645
70	630	700	770	840	40	80	730
75	675	750	825	900	40	80	820

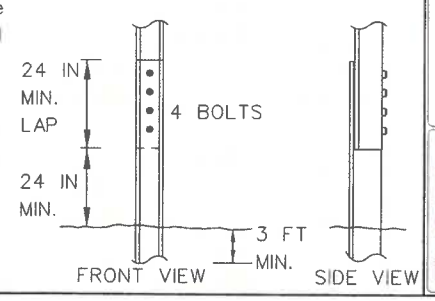
SPEED LIMIT (prior to construction)	SHIFTING TAPER LENGTH (1/2)(L) Lane Shift (FT)						STANDARD DEVICE SPACING IN FEET		BUFFER SPACE
MPH	2	4	6	8	10	12	Along Taper	Along Tangent	FT
25	11	21	32	42	52	63	20	40	155
30	15	30	45	60	75	90	30	60	200
35	21	41	62	82	102	123	35	70	250
40	27	54	80	107	134	160	40	80	305
45	45	90	135	180	225	270	40	80	360
50	50	100	150	200	250	300	40	80	425
55	55	110	165	220	275	330	40	80	495
60	60	120	180	240	300	360	40	80	570
65	65	130	195	260	325	390	40	80	645
70	70	140	210	280	350	420	40	80	730
75	75	150	225	300	375	450	40	80	820

SPEED LIMIT (prior to construction)	SHOULDER TAPER LENGTH (1/3)(L) Shoulder Width (FT)						STANDARD DEVICE SPACING IN FEET		BUFFER SPACE
MPH	2	4	6	8	10	12	Along Taper	Along Tangent	FT
25	7	14	21	28	35	42	20	40	155
30	10	20	30	40	50	60	30	60	200
35	14	28	41	55	68	82	35	70	250
40	18	36	54	72	89	107	40	80	305
45	30	60	90	120	150	180	40	80	360
50	34	67	100	134	167	200	40	80	425
55	37	74	110	147	184	220	40	80	495
60	40	80	120	160	200	240	40	80	570
65	44	87	130	174	217	260	40	80	645
70	47	94	140	187	234	280	40	80	730
75	50	100	150	200	250	300	40	80	820

- All termination and flagger tapers are 100 feet. (MIN. 6 channelizing devices per lane equally spaced 20 feet apart.)
- See TTC Standards for flagger taper.
- See MUTCD for taper formulas.

- ALLOWABLE LAP SPLICE FOR U-CHANNEL POST

U-Channel posts may be spliced where long lengths are required. The upper section shall overlap the lower section by at least 24 inches. The bottom edge of the upper section of the splice shall be a minimum of 24 inches above the ground. The spliced sections shall be secured with at least four 5/16 inch diameter hex bolts spaced equally along the splice.



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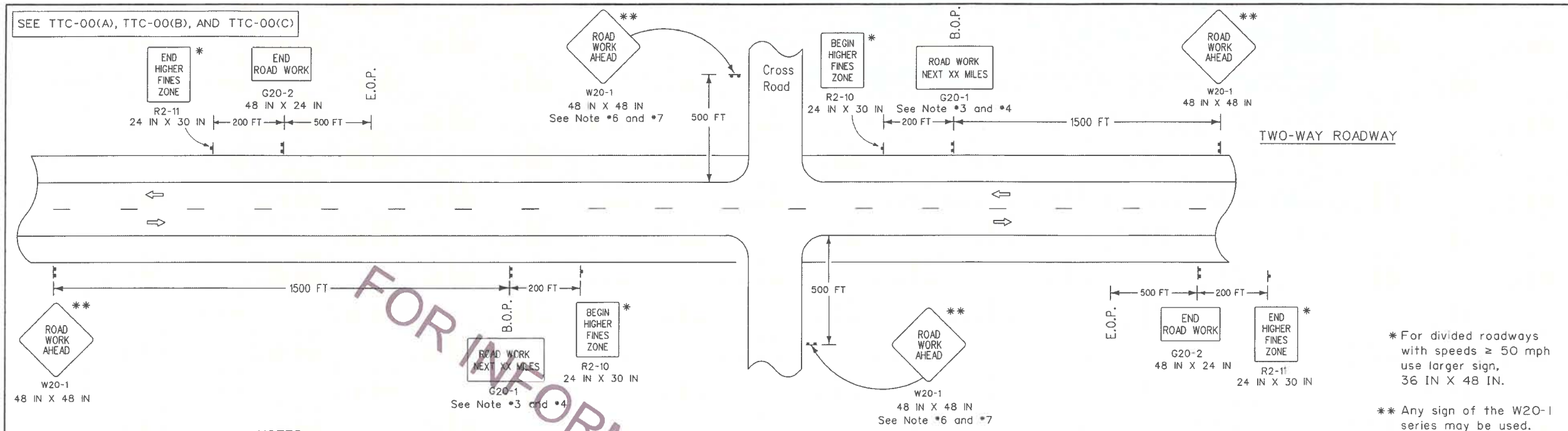
DESIGNED C. LEBLANC
CHECKED J. COLVIN
DETAILED C. FARGURI
CHECKED G. LEBLANC
PARISH
CONTROL SECTION
STATE PROJECT
SERIES NUMBER
SHEET NUMBER
NO. DATE REVISION OR CHANGE ORDER DESCRIPTION BY DATE 7/2/18
APPROVED BY CHIEF ENGINEER

DOTD TRAFFIC ENGINEERING

TEMPORARY TRAFFIC CONTROL
GENERAL NOTES SHEET
TTC-00 (C)

SEE TTC-00(A), TTC-00(B), AND TTC-00(C)



* For divided roadways with speeds ≥ 50 mph use larger sign, 36 IN X 48 IN.

** Any sign of the W20-1 series may be used.

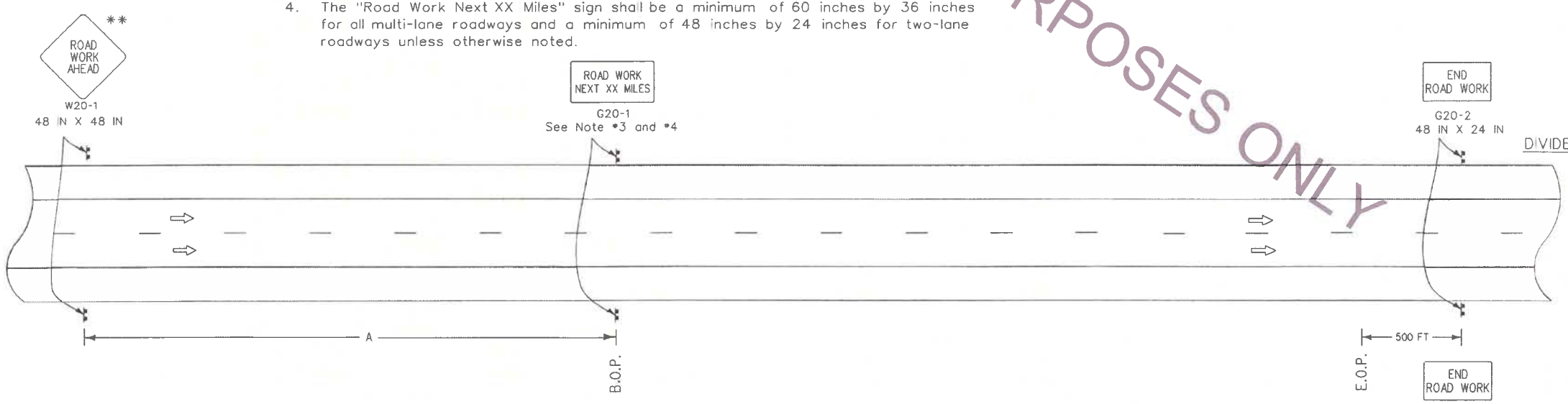
NOTES

This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B), TTC-00(C), and other Temporary Traffic Control Sheets as appropriate.

1. This layout represents the minimum traffic controls required for placement of "Road Work Next XX Miles" and "End Road Work" signs.
2. This layout does not replace other TTC Standard Sheets, but is intended as a supplement to the required signing.
3. The distance on the "Road Work Next XX Miles" sign shall be stated to the nearest whole mile. This sign shall be placed at the Beginning of Project (B.O.P.) limits. This sign may be omitted if work zone is less than 0.5 miles.
4. The "Road Work Next XX Miles" sign shall be a minimum of 60 inches by 36 inches for all multi-lane roadways and a minimum of 48 inches by 24 inches for two-lane roadways unless otherwise noted.
5. The "End Road Work" sign shall be placed 500 feet past the End of Project (E.O.P.) limits.
6. If "Road Work Ahead" sign is used on a cross road to warn of road work on another route, then "End Road Work" sign is not required.
7. When projects are separated by less than 1 mile, they shall be signed as one project; this may require coordination.

LEGEND

- Traffic Sign
- Direction of Travel



SPEED LIMIT (prior to construction)	SPACING 'A'
≤ 40 mph	1500 FT
45 mph	2640 FT
> 45 mph	5280 FT

- Sign spacing to be adjusted for Horizontal and Vertical curves.
- For work outside of the traveled way, see TTC-01 and TTC-02.

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

GARY Y LeBLANC
REG No 28220
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
6-27-18

SHEET NUMBER

PARISH | CONTROL SECTION | STATE PROJECT

DESIGNED G. LEBLANC
CHECKED J. COLVIN
DETAILED C. FAKOURI
CHECKED G. LEBLANC
SERIES NUMBER 8?

REVISION OR CHANGE ORDER DESCRIPTION | DATE | NO. | APPROVED BY CHIEF ENGINEER: 7/2/18

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

TEMPORARY TRAFFIC CONTROL
LAYOUT FOR PLACEMENT OF ROAD WORK NEXT XX MILES AND END ROAD WORK SIGNS

TTC-00 (D)

DOTD TRAFFIC ENGINEERING

6 103 631

SEE TTC-00(A), TTC-00(B) AND TTC-00(C)

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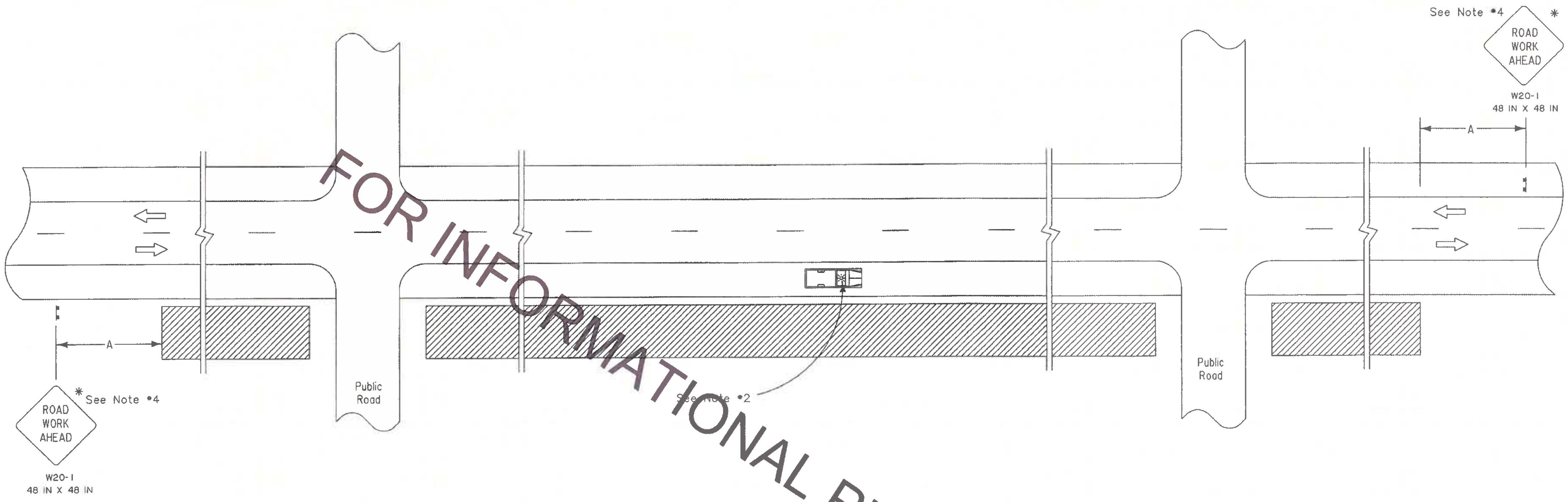


LEGEND

- Traffic Sign
- Work Area
- Direction of Travel
- Truck with Amber Light

SPEED LIMIT (prior to construction)	SPACING 'A'
≤ 40 mph	500 FT
45-50 mph	1000 FT
≥ 55 mph	1500 FT

NOTES

This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B) and TTC-00(C).

1. This layout represents the minimum traffic controls required for workers and equipment operating more than 15 feet from the travel way.

2. If the operation results in equipment or other vehicles being parked closer than 15 feet to the travel way, but not within the roadway, each vehicle shall have an amber light.

3. When a work area has been established on one side of the roadway only, there shall be no parking on the opposite shoulder within 500 feet of the work area.

4. Other signs may be used in place of the "Road Work Ahead" sign, such as W21-8 (Mowing), W21-7 (Utility), or W21-6 (Survey) when applicable.

* Any sign of the W20-1 series may be used.

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

STATE OF LOUISIANA
GARY V LeBLANC
REG No 28220
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
6-27-18

DOTD TRAFFIC ENGINEERING

TEMPORARY TRAFFIC CONTROL
FOR WORK GREATER THAN 15 FEET FROM THE TRAVELED WAY

TTC-01

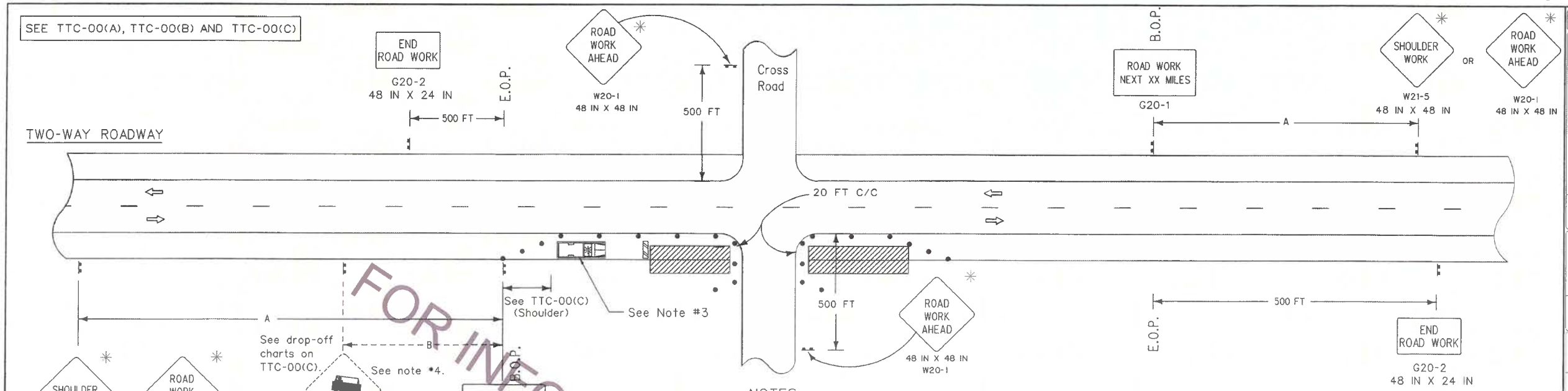
NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

APPROVED BY CHIEF ENGINEER: [signature] DATE: 7/2/18

DESIGNED	G. LEBLANC	PARISH	
CHECKED	J. COLVIN		
DETAILED	C. FAKOURI	CONTROL SECTION	
CHECKED	G. LEBLANC		
SERIES NUMBER		STATE PROJECT	

SHEET NUMBER

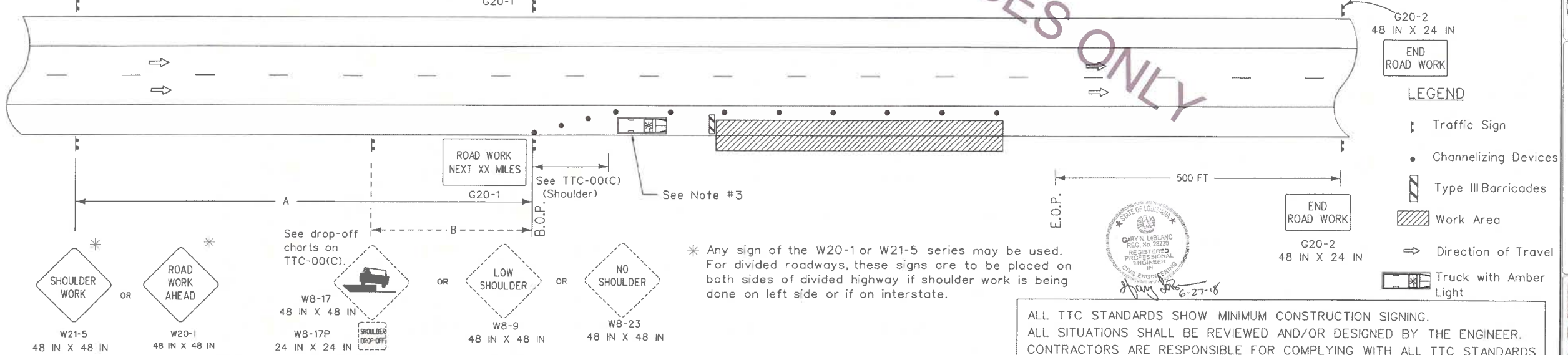
SEE TTC-00(A), TTC-00(B) AND TTC-00(C)



SPEED LIMIT (prior to construction)	SPACING	
	'A'	'B'
≤ 40 mph	500 FT	250 FT
45-50 mph	1000 FT	350 FT
≥ 55 mph	1500 FT	500 FT
Expressway/Interstate	2500 FT	1000 FT

- See TTC-00(C) for minimum taper length and maximum device spacing for shoulder closure tapers.
- If horizontal curve radius is less than 300 feet, device spacing shall be 25 feet.

DIVIDED ROADWAY



✳ Any sign of the W20-1 or W21-5 series may be used. For divided roadways, these signs are to be placed on both sides of divided highway if shoulder work is being done on left side or if on interstate.

NOTES

This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B), TTC-00(C)

1. This layout represents the minimum traffic controls required for workers and equipment operating less than 15 feet from the traveled way for more than one hour. Less than one hour, see figure TA-4 of the MUTCD.
2. No signs or barricades are required for equipment operating or work in progress greater than 15 feet from the traveled way. (See TTC-01).
3. Work or equipment confined to a spot location (less than 200 feet) shall be marked by channelizing devices spaced at 25 feet or by a vehicle with an amber light visible to traffic. Work extending more than 200 feet of roadway length shall be marked with appropriate devices spaced as noted on TTC-00(C).
4. Applicable drop-off sign options are defined on TTC-00(C).
5. The distance on the "Road Work Next XX Miles" sign shall be stated to the nearest whole mile. This sign shall be placed at the Beginning of Project (B.O.P.) limits. This sign may be omitted if work zone is less than 0.5 miles.
6. A vehicle with a flashing amber light and a truck mounted attenuator shall be used on all roadways with an ADT greater than 20,000 and a pre-construction speed greater than or equal to 40 mph. This vehicle shall move with work operations not to exceed the roll-ahead distance required by the manufacturer plus 100 feet.

LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Work Area
- Direction of Travel
- Truck with Amber Light

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

GARY N. LEBLANC REG. No. 22220 REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
6-27-18

SHEET NUMBER | PARISH | CONTROL SECTION | STATE PROJECT
DESIGNED G. LEBLANC | DETAILED C. FALCONER | SERIAL NUMBER
CHECKED J. COLVIN | CHECKED G. LEBLANC
NO. | DATE | REVISION OR CHANGE ORDER DESCRIPTION | BY | DATE 7/2/18
APPROVED CHIEF ENGINEER

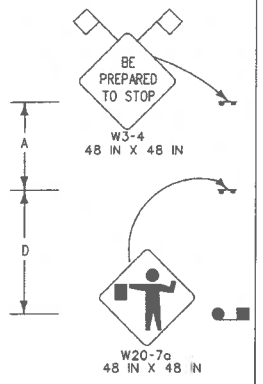
TEMPORARY TRAFFIC CONTROL
LAYOUT FOR WORK LESS THAN 15 FEET FROM THE TRAVELED WAY

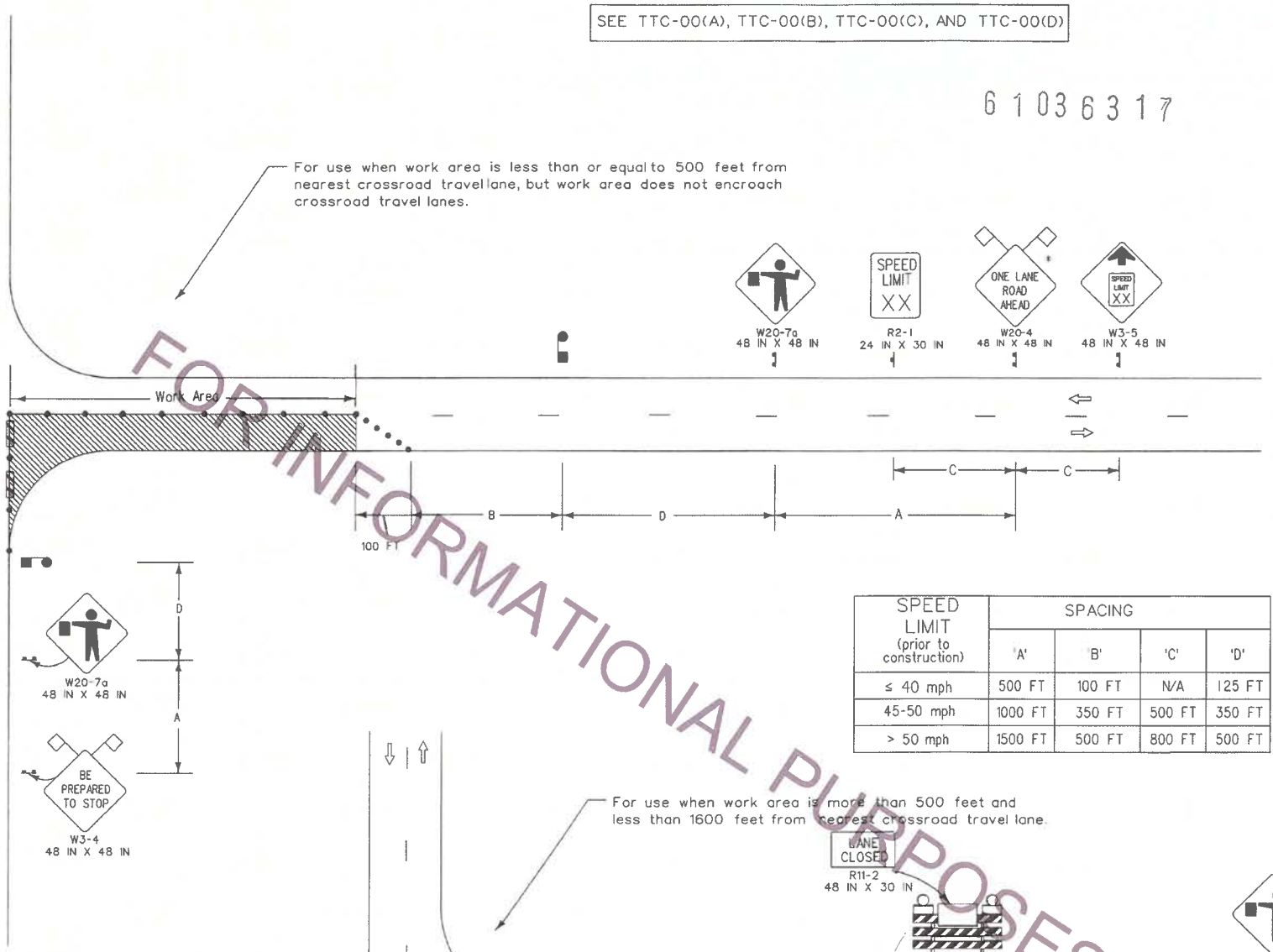
TTC-02

DOTD TRAFFIC ENGINEERING

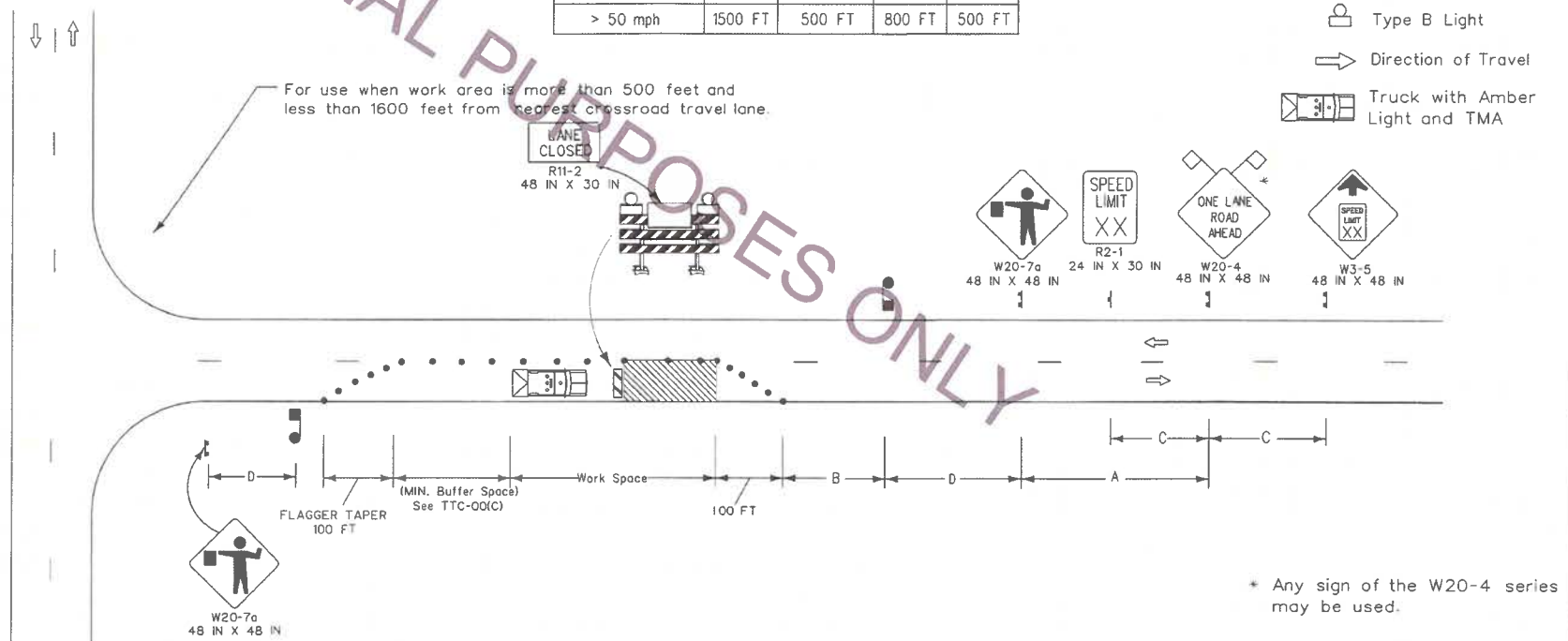
SEE TTC-00(A), TTC-00(B), TTC-00(C), AND TTC-00(D)

61036317





SPEED LIMIT (prior to construction)	SPACING			
	'A'	'B'	'C'	'D'
≤ 40 mph	500 FT	100 FT	N/A	125 FT
45-50 mph	1000 FT	350 FT	500 FT	350 FT
> 50 mph	1500 FT	500 FT	800 FT	500 FT



* Any sign of the W20-4 series may be used.

NOTES

This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B), TTC-00(C), and TTC-00(D).

1. This layout represents the minimum traffic controls required for lane closures on two-lane roads with two-way traffic less than 1600 feet from an intersection. For advance signing see TTC-00(D).
2. Visual or radio contact shall be required between flaggers at all times. The flagger shall be visible from flagger sign.
3. Only law officers shall direct traffic against a traffic signal indication.
4. If work area is greater than 1600 feet see TTC-04.
5. If a pilot car is required then the contractor is not required to have channelizing devices in the tangent section.
6. A vehicle with a flashing amber light and a truck mounted attenuator shall be used on all roadways with an ADT greater than 20,000 and a pre-construction speed greater than or equal to 40 mph. This vehicle shall move with work operations not to exceed the roll-ahead distance required by the manufacturer plus 100 feet.

PILOT CAR

- If used, a pilot car shall guide a queue of vehicles through the work zone or diversion.
- It shall be used in restricted visibility operations such as lime or cement stabilization, chip seals, or operations in hilly or curvy terrains, where flaggers cannot see each other (no clear line-of-sight).
- The operation of the pilot vehicle shall be coordinated with flagging operations or other controls at each end of the one-lane section and all major driveways and street intersections.
- The pilot car sign should be mounted 7 feet above roadway in a position visible to oncoming and following traffic.
- The pilot car shall have an amber beacon light.
- The sign mounted on the vehicle shall be two-sided.

LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Work Area
- Flagger
- Type B Light
- Direction of Travel
- Truck with Amber Light and TMA

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

GARY N. LeBLANC
REG. No. 28220
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
6-27-18

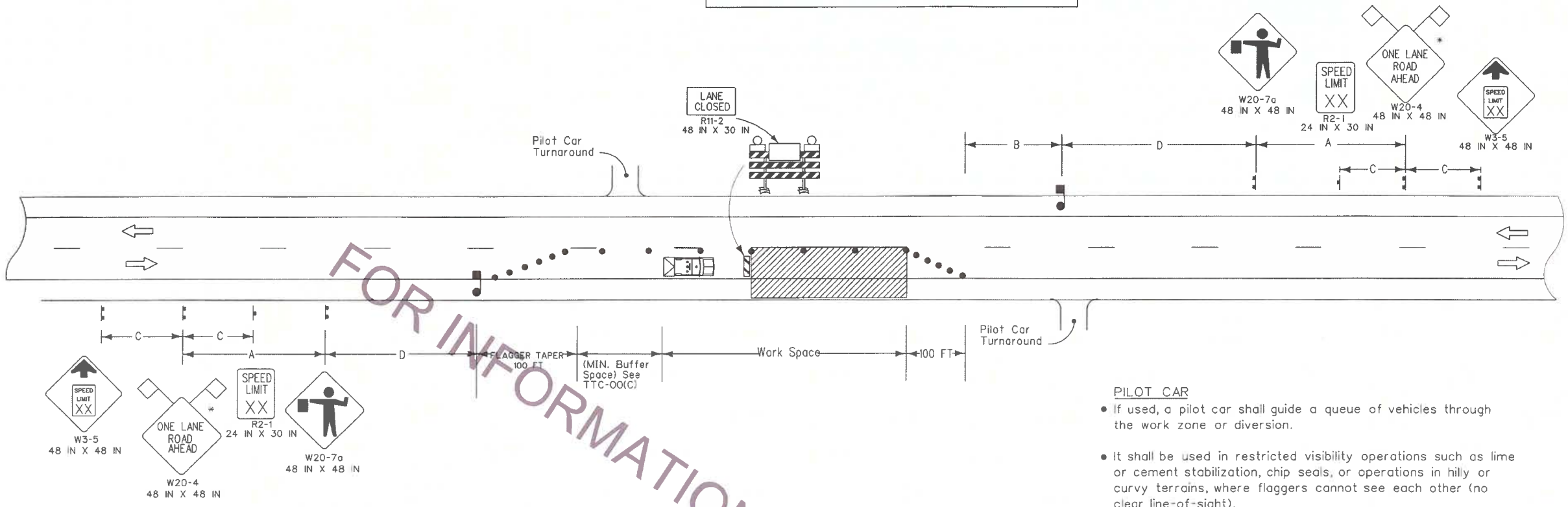
SHEET NUMBER | PARISH | CONTROL SECTION | STATE PROJECT
DESIGNED G. LEBLANC | CHECKED J. COLVIN
DETAILED C. FAKOURI | CHECKED G. LEBLANC
SERIES NUMBER
REVISION OR CHANGE ORDER DESCRIPTION | NO. | DATE | BY | APPROVED BY CHIEF ENGINEER
DATE: 7/2/18

STATE OF LOUISIANA

DOTD TRAFFIC ENGINEERING

TEMPORARY TRAFFIC CONTROL
LAYOUT FOR LANE CLOSURES ON TWO LANE ROADS WITH TWO-WAY TRAFFIC NEAR INTERSECTIONS (FLAGGING OPERATIONS)
TTC-03

SEE TTC-00(A), TTC-00(B), TTC-00(C), AND TTC-00(D)



NOTES

This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B), TTC-00(C) and TTC-00(D).

1. This layout represents the minimum traffic controls required for lane closures on two-lane roads with two-way traffic greater than 1600 feet from an intersection. For this type of closure either a flagger or a pilot car will be required. For advance signing see TTC-00(D).
2. To prevent vehicles from entering the work area against the flow of traffic, an additional flagger shall be stationed at each intersection, major driveway, railroad crossing, or crossing within the work area.
3. For projects in rural areas the distance between flaggers shall not exceed:
   (A) 2.5 miles for ADT<2,500
   (B) 2.0 miles for 2,500<ADT<5,000
   (C) 1.5 miles for ADT>5,000
4. The flagger station shall be near the beginning of the taper and shall have adequate sight distance to be visible to oncoming traffic. If sight distance cannot be achieved, the distance between flaggers may be extended for a short duration.
5. Visual or radio contact shall be required between flaggers at all times. The flagger shall be visible from the flagger sign.
6. A vehicle with a flashing amber light and a truck mounted attenuator shall be used on all roadways with an ADT greater than 20,000 and a pre-construction speed greater than or equal to 40 mph. This vehicle shall move with work operations not to exceed the roll-ahead distance required by the manufacturer plus 100 feet.
7. If a pilot car is required then the contractor is not required to have channelizing devices in the tangent section.
8. If work zone is less than 1600 feet from an intersection see TTC-03.

SPEED LIMIT (prior to construction)	SPACING			
	'A'	'B'	'C'	'D'
≤ 40 mph	500 FT	100 FT	N/A	125 FT
45-50 mph	1000 FT	350 FT	500 FT	350 FT
≥ 55 mph	1500 FT	500 FT	800 FT	500 FT

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

PILOT CAR

- If used, a pilot car shall guide a queue of vehicles through the work zone or diversion.
- It shall be used in restricted visibility operations such as lime or cement stabilization, chip seals, or operations in hilly or curvy terrains, where flaggers cannot see each other (no clear line-of-sight).
- The operation of the pilot vehicle shall be coordinated with flagging operations or other controls at each end of the one-lane section and all major driveways and street intersections.
- The pilot car sign should be mounted 7 feet above roadway in a position visible to oncoming and following traffic.
- The pilot car shall have an amber beacon light.
- The sign mounted on the vehicle shall be two-sided.

PILOT CAR — G20-4, 36 IN X 18 IN (FRONT OF SIGN)

PILOT CAR FOLLOW ME — G20-4, 36 IN X 18 IN (BACK OF SIGN)

* Any sign of the W20-4 series may be used.

STATE OF LOUISIANA — GARY N. LEBLANC — REG. No. 28220 — REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING — 6-27-18

LEGEND

- Traffic Sign
- Flagger
- Channelizing Devices
- Type III Barricades
- Work Area
- Type B Light
- Direction of Travel
- Truck with Amber Light and TMA

SHEET NUMBER

DESIGNED	G. LEBLANC
CHECKED	J. COLVIN
DETAILED	C. FAKOURI
CHECKED	G. LEBLANC

PARISH | CONTROL SECTION | STATE PROJECT | SERIES NUMBER

REVISION OR CHANGE ORDER DESCRIPTION | NO. | DATE | BY | APPROVED: MTF CHIEF ENGINEER

DATE: 7/9/18

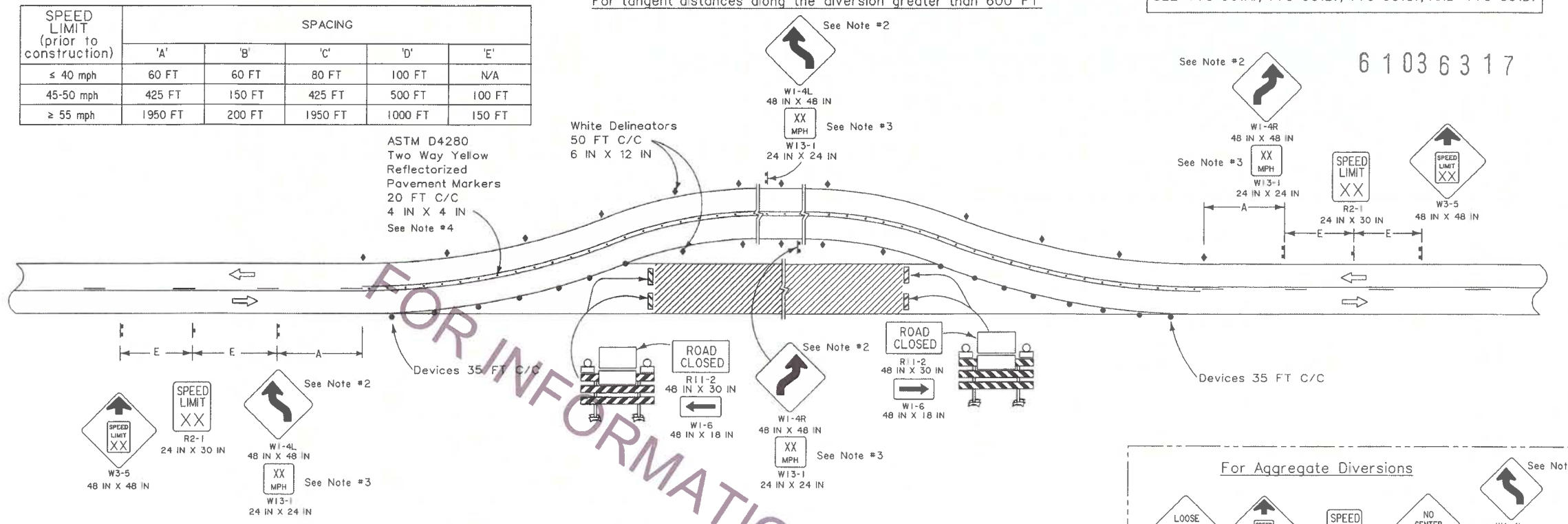
TEMPORARY TRAFFIC CONTROL
LAYOUT FOR LANE CLOSURES ON TWO LANE ROADS WITH TWO-WAY TRAFFIC (FLAGGING OPERATIONS)

TTC-04

DOTD TRAFFIC ENGINEERING

SPEED LIMIT (prior to construction)	SPACING				
	'A'	'B'	'C'	'D'	'E'
≤ 40 mph	60 FT	60 FT	80 FT	100 FT	N/A
45-50 mph	425 FT	150 FT	425 FT	500 FT	100 FT
≥ 55 mph	1950 FT	200 FT	1950 FT	1000 FT	150 FT

For tangent distances along the diversion greater than 600 FT



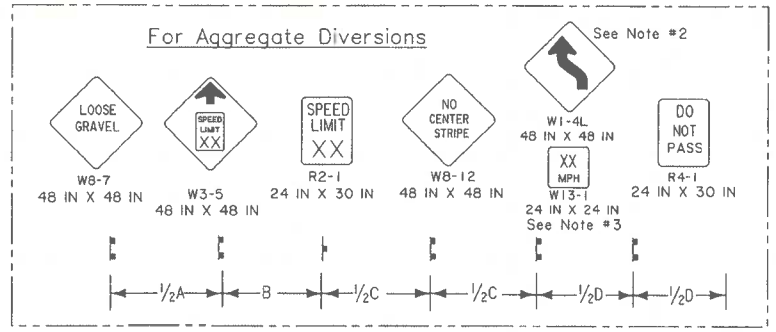
SEE TTC-00(A), TTC-00(B), TTC-00(C), AND TTC-00(D)

6 1 0 3 6 3 1 7

LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Single White Delineators (6IN X 12 IN)
- Reflectorized Pavement Markers
- Type B Light
- Direction of Travel

For Aggregate Diversions

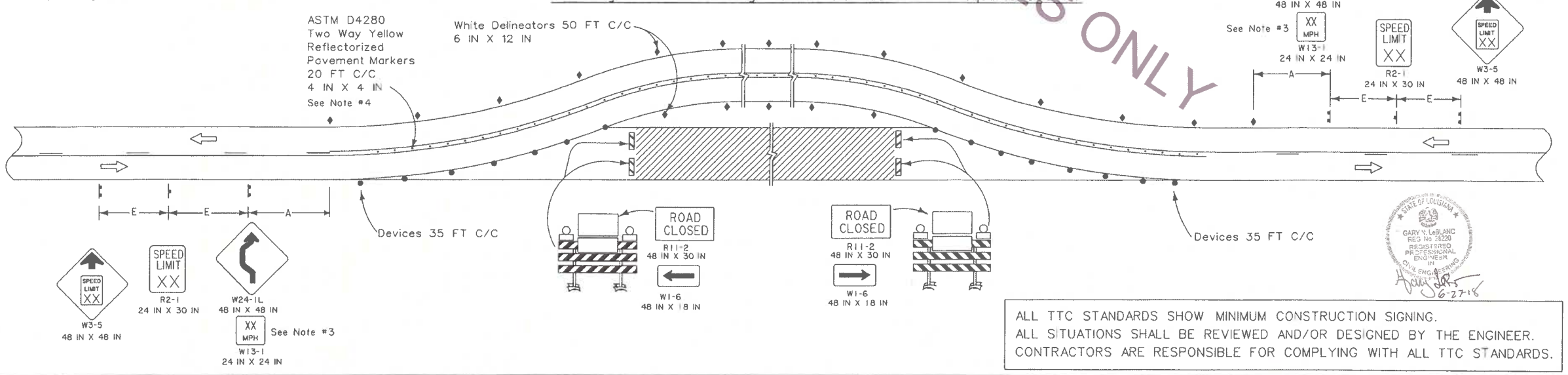


NOTES

This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B), TTC-00(C), and TTC-00(D).

1. This layout represents the minimum traffic controls required for a paved or aggregate diversion. For advance signing see TTC-00(D).
2. If advisory speed is less than 35 mph, the reverse curve signs (W1-4L or W1-4R) will be changed to reverse turn sign (W1-3L or W1-3R).
3. Advisory speed plaques (W13-1) shall be required if the difference between the speed limit prior to construction and the advisory speed (determined by an engineering study performed by the DTOE) is 10 mph or greater.
4. Paved Diversions shall be striped with double yellow solid lines and raised pavement markings as per LADOTD Pavement Marking Standards.
5. Aggregate Diversions shall include "Do Not Pass" (R4-1) signs, "Loose Gravel" (W8-7) signs, and "No Center Stripe" (W8-12) signs and either supercones or flex posts to delineate the centerline.

For tangent distances along the diversion less than or equal to 600 FT



ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

STATE OF LOUISIANA
GARY N. LEBLANC
REG No 28220
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
6-27-18

SHEET NUMBER
PARISH
CONTROL SECTION
STATE PROJECT
DESIGNED G. LEBLANC
CHECKED J. COLVIN
DETAILED C. FAKOURI
CHECKED C. LEBLANC
SERIES NUMBER
NO. DATE REVISION OR CHANGE ORDER DESCRIPTION BY
APPROVED BY CHIEF ENGINEER
DATE: 7/2/18

DOTD TRAFFIC ENGINEERING

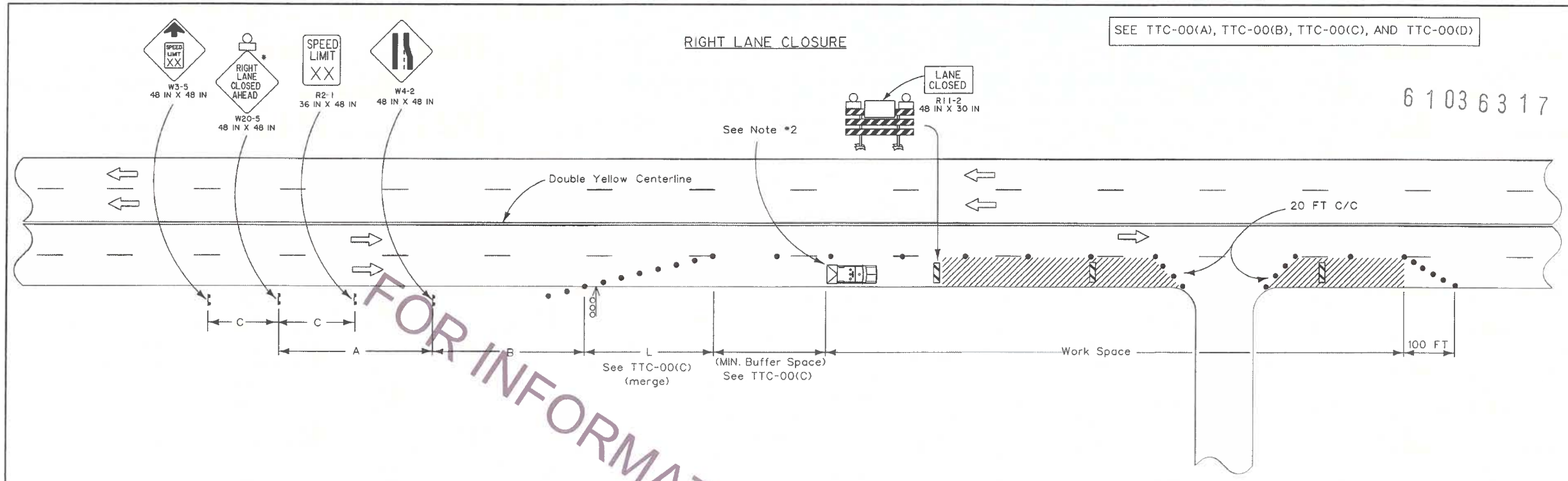
TEMPORARY TRAFFIC CONTROL FOR ON SITE DIVERSION WITH TWO-WAY TRAFFIC

TTC-05

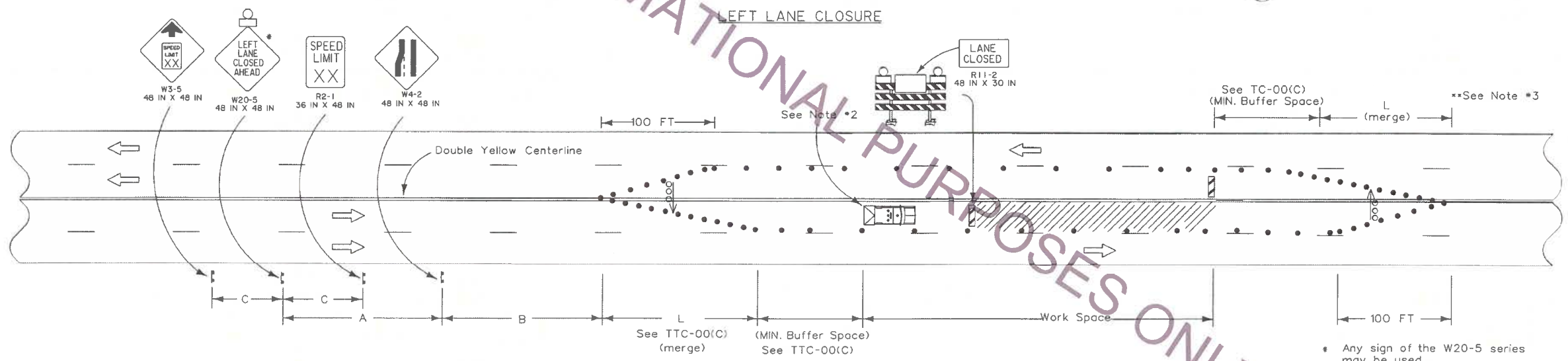
SEE TTC-00(A), TTC-00(B), TTC-00(C), AND TTC-00(D)

6 1036317

RIGHT LANE CLOSURE



LEFT LANE CLOSURE



* Any sign of the W20-5 series may be used.

SPEED LIMIT (prior to construction)	SPACING		
	'A'	'B'	'C'
≤ 40 mph	500 FT	250 FT	N/A
45-50 mph	1000 FT	360 FT	500 FT

LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Flashing Arrow Board (Type 'C')
- Work Area
- Type B Light
- Direction of Travel
- Truck with Amber Light and TMA

NOTES

This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B), TTC-00(C), and TTC-00(D).

1. This layout represents the minimum traffic controls required for lane closures on a four-lane undivided highway or a roadway with two-way left turn lanes. This is not for roadways with a speed limit of 55 mph or greater prior to construction. For advance signing see TTC-00(D).
2. A vehicle with a flashing amber light and a truck mounted attenuator shall be used on all roadways with an ADT greater than 20,000 and a pre-construction speed greater than or equal to 40 mph. This vehicle shall move with work operations not to exceed the rollahead distance required by the manufacturer plus 100 feet.
3. Advance signing shall match that shown for opposite direction.
4. A flagger shall be used to alert motorists when equipment or workers encroach within 2 feet of an open lane. The flagger shall be posted inside the work zone, adjacent to the open travel lane, and immediately upstream of each operation to facilitate ingress/egress of construction equipment and vehicles. Encroachment shall be held to a minimum.

STATE OF LOUISIANA
GARY N. LeBLANC
REG. No 28220
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
6-27-18

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

SHEET NUMBER

PARISH | CONTROL SECTION | STATE PROJECT #

DESIGNED G. LEBLANC
CHECKED J. COLVIN
DETAILED C. FAKOURI
CHECKED G. LEBLANC

SERIES NUMBER

NO. | DATE | BY | REVISION OR CHANGE ORDER DESCRIPTION

APPROVED BY: CHIEF ENGINEER
DATE: 7/2/18

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DOTD TRAFFIC ENGINEERING

TEMPORARY TRAFFIC CONTROL FOR LANE CLOSURE ON FOUR-LANE UNDIVIDED HIGHWAYS

TTC-06

SEE TTC-00(A), TTC-00(B), TTC-00(C), AND TTC-00(D)

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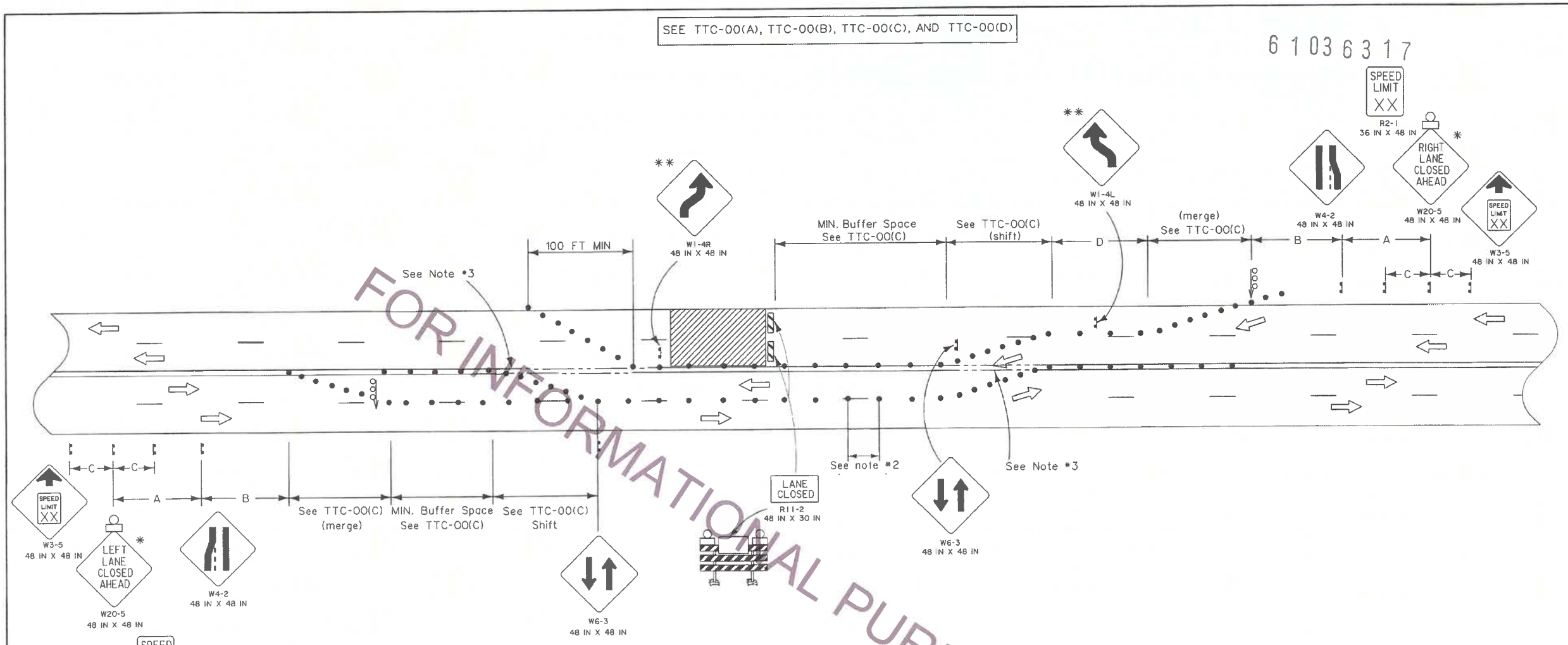


SPEED LIMIT (prior to construction)	SPACING			
	'A'	'B'	'C'	'D'
25 mph	250 FT	250 FT	N/A	65 FT
30 mph	250 FT	250 FT	N/A	90 FT
35 mph	500 FT	350 FT	N/A	125 FT
40 mph	500 FT	350 FT	N/A	160 FT
45 mph	1000 FT	500 FT	500 FT	270 FT
50 mph	1640 FT	1000 FT	800 FT	300 FT
55 mph	1640 FT	1000 FT	800 FT	330 FT

LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Flashing Arrow Board (Type 'C')
- Work Area
- Type B Light
- Direction of Travel

* Any sign of the W20-5 series may be used.

** In order to give road users advance notice of a lane shift, a Reverse Curve (W1-4, W1-4b or W1-4c) sign should be used when a lane (or lanes) is being shifted to the left or right. If a Reverse Curve sign is used and design speed of the curves is 30 mph or less, a Reverse Turn (W1-3) sign shall be used.

STATE OF LOUISIANA
GARY N. LEBLANC
REG. No. 28223
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
6-27-18

NOTES

This sheet shall be used with the Temporary Traffic Control General Notes sheets TTC-00(A), TTC-00(B), TTC-00(C), and TTC-00(D).

1. This layout represents the minimum traffic controls required for closure of two adjacent lanes on a four-lane undivided highway. For advance signing see TTC-00(D).
2. During daytime operations, traffic cones may be used to seperate traffic lanes. When this layout is authorized to be used during nighttime hours or if the width of the traffic lanes are less than 11 feet, the contractor shall be required to use flex posts or super cones to separate head-to-head (two-lane two way traffic) spaced at 20 feet in tangent and 10 feet in taper.
3. When traffic control is planned to be in place for more than 3 days, conflicting pavement markings shall be removed and temporary markings added.
4. A flagger shall be used to alert motorists when equipment or workers encroach within 2 feet of an open lane. The flagger shall be posted inside the work zone, adjacent to the open travel lane, and immediately upstream of each operation to facilitate ingress/egress of construction equipment and vehicles. Encroachment shall be held to a minimum.

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

SHEET NUMBER
PARISH
CONTROL SECTION
STATE PROJECT
DESIGNED G. LEBLANC
CHECKED J. COLVIN
DETAILED C. FAKOURI
CHECKED G. LEBLANC
SERIES NUMBER
REVISION OR CHANGE ORDER DESCRIPTION
BY
DATE 7/2/18
NO.
DATE
APPROVED BY CHIEF ENGINEER

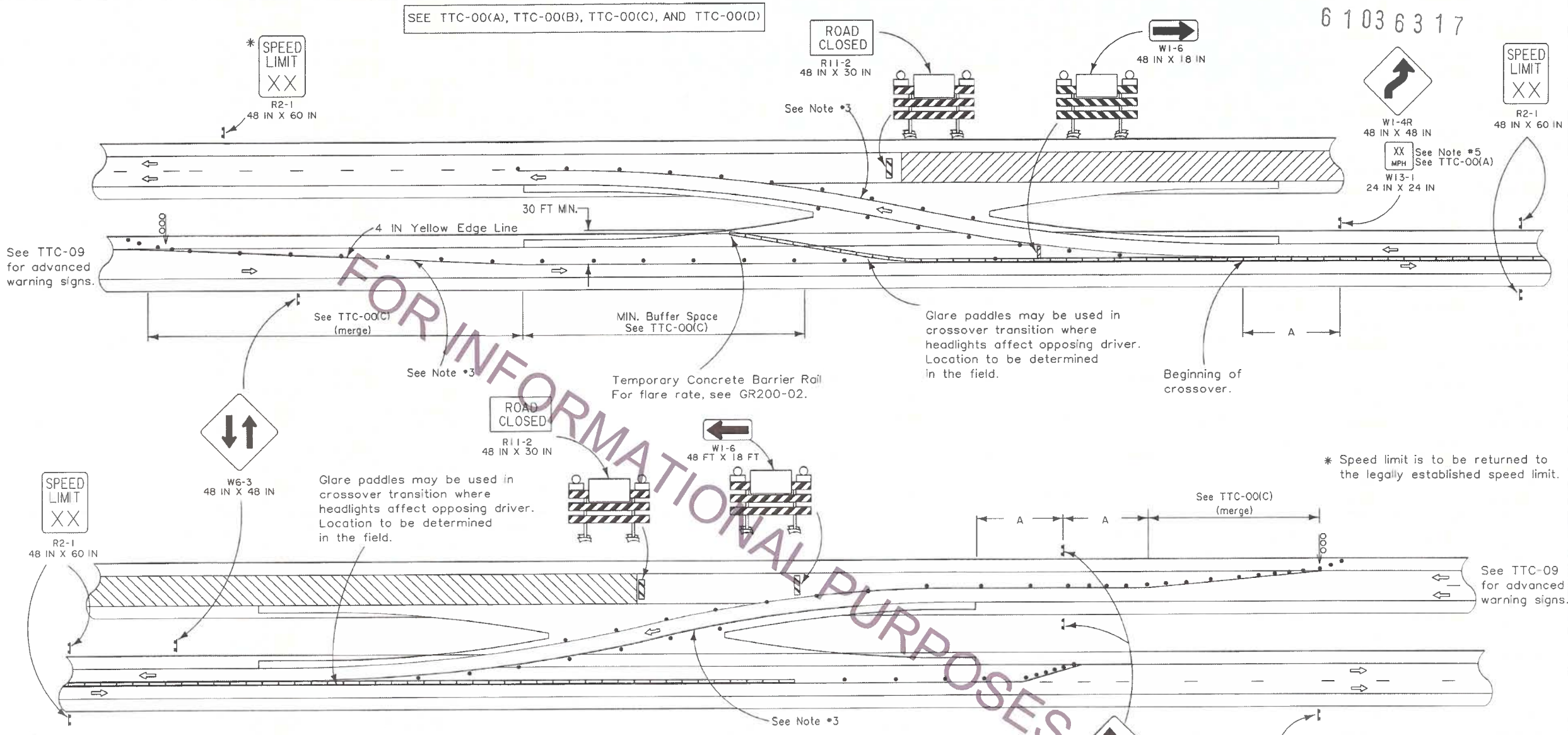
DOTD TRAFFIC ENGINEERING

TEMPORARY TRAFFIC CONTROL FOR CLOSURE OF TWO ADJACENT LANES ON FOUR-LANE UNDIVIDED HIGHWAYS

TTC-07

SEE TTC-00(A), TTC-00(B), TTC-00(C), AND TTC-00(D)

61036317



NOTES

This sheet shall be used with Temporary Traffic Control
General Notes Sheets TTC-00(A), TTC-00(B), TTC-00(C), and TTC-00(D).

1. This layout represents the minimum traffic controls required for median crossovers on divided highways. For advance signing see TTC-00(D) and TTC-09.
2. For posted speed limits prior to construction that are greater than 45 mph, concrete barriers shall be required to separate the lanes of travel. For posted speed limits prior to construction that are 45 mph or less, concrete barriers may be substituted by tubular markers or flexposts.
3. Temporary raised pavement markers spaced at 15 FT C/C shall be used to supplement the white and yellow temporary edge lines through the reverse curves of the crossover. All temporary edge lines between the barrier rail and the beginning of the lane reduction taper shall have temporary raised pavement markers spaced at 15 FT C/C.
4. When traffic control is planned to be in place for more than 3 days, conflicting pavement markings shall be removed and temporary markings added.
5. Advisory speed plaques (W13-1) shall be required if the difference between the speed limit prior to construction and the advisory speed (determined by an engineering study performed by the DTOE) is 10 mph or greater.

SPEED LIMIT (prior to construction)	SPACING 'A'
25 mph	63 FT
30 mph	90 FT
35 mph	123 FT
40 mph	160 FT
45 mph	270 FT
50 mph	300 FT
55 mph	330 FT

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

STATE OF LOUISIANA
GARY V. LEBLANC
REG. No. 28220
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
6-27-18

LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Flashing Arrow Board (Type 'C')
- Work Area
- Concrete Barrier
- Type B Light
- Direction of Travel

SHEET NUMBER

DESIGNED	G. LEBLANC
CHECKED	J. COLVIN
DETAILED	C. FAKOURI
CHECKED	G. LEBLANC

PARISH | CONTROL SECTION | STATE PROJECT(S) | SERIES NUMBER

REVISION OR CHANGE ORDER DESCRIPTION | NO. | DATE | BY | APPROVED BY CHIEF ENGINEER

DATE: 7/2/18

TEMPORARY TRAFFIC CONTROL
FOR MEDIAN CROSSOVER
ON DIVIDED HIGHWAYS

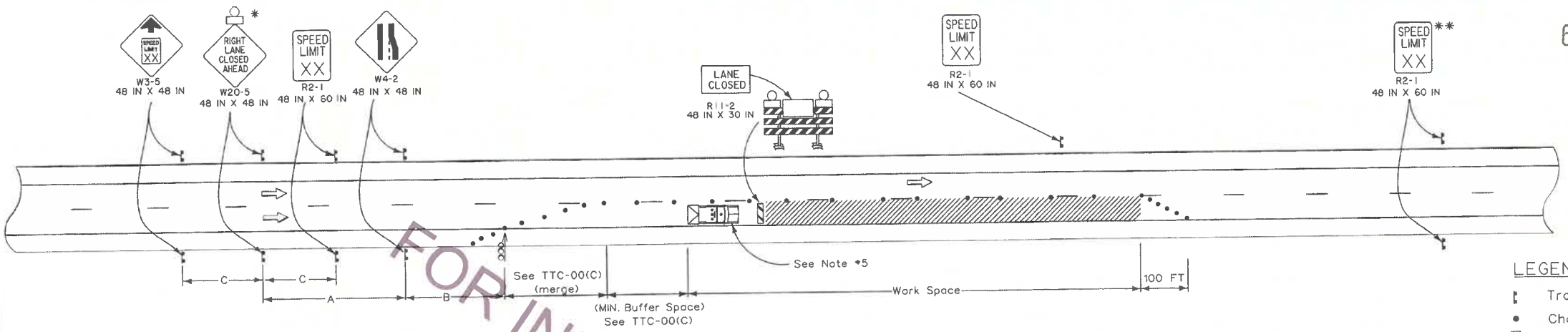
TTC-08

DOTD TRAFFIC ENGINEERING

SEE TTC-00(A), TTC-00(B), TTC-00(C), AND TTC-00(D)

61036317

RIGHT LANE CLOSURE



SPEED LIMIT (prior to construction)	SPACING		
	'A'	'B'	'C'
45 mph	1000 FT	500 FT	500 FT
50 mph	1000 FT	500 FT	500 FT
≥ 55 mph	1640 FT	1000 FT	800 FT

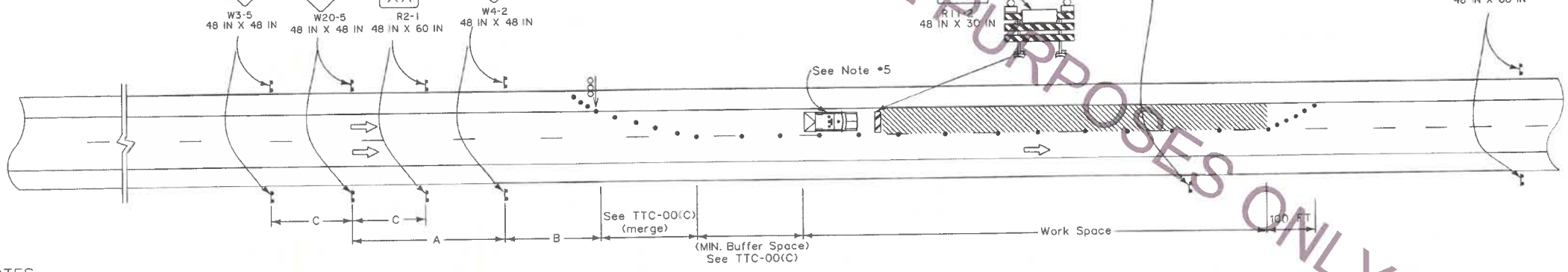
* Any sign of the W20-5 series may be used.

** Speed limit is to be returned to legally established speed limit.

LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Flashing Arrow Board (Type 'C')
- Work Area
- Type B Light
- Direction of Travel
- Truck with Amber Light and TMA

LEFT LANE CLOSURE



NOTES

This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B), TTC-00(C), and TTC-00(D).

1. This layout represents the minimum traffic controls required for lane closures on divided highways with speed limits greater than 40 mph. This layout does not cover roadwork where a ramp entrance or an exit taper falls within the work area. For advance signing see TTC-00(D).
2. This layout does not illustrate roadwork near a signal or a major intersection.
3. Sign spacing may be adjusted due to access conditions of the corridor.
4. If speed limit is less than 45 mph, see TTC-10.
5. A vehicle with a flashing amber light and a truck mounted attenuator shall be used on all interstate projects or on all roadways with an ADT greater than 20,000 and a pre-construction speed greater than or equal to 40 mph. This vehicle shall move with work operations not to exceed the roll-ahead distance required by the manufacturer plus 100 feet.
6. A flagger shall be used to alert motorists when equipment or workers encroach within 2 feet of an open lane. The flagger shall be posted inside the work zone, adjacent to the open travel lane, and immediately upstream of each operation to facilitate ingress/egress of construction equipment and vehicles. Encroachment shall be held to a minimum.
7. A "Road Work Ahead" sign shall be placed within 1000 feet ahead of the entrance ramp nose for any ramp within the area of traffic control signing.

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

STATE OF LOUISIANA
GARY Y. LEBLANC
REG. No. 23220
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
6-27-18

SHEET NUMBER

PARISH	CONTROL SECTION	STATE PROJECT

DESIGNED G. LEBLANC
CHECKED J. COLVIN
DETAILED C. FARKOURI
CHECKED G. LEBLANC
SERIES NUMBER

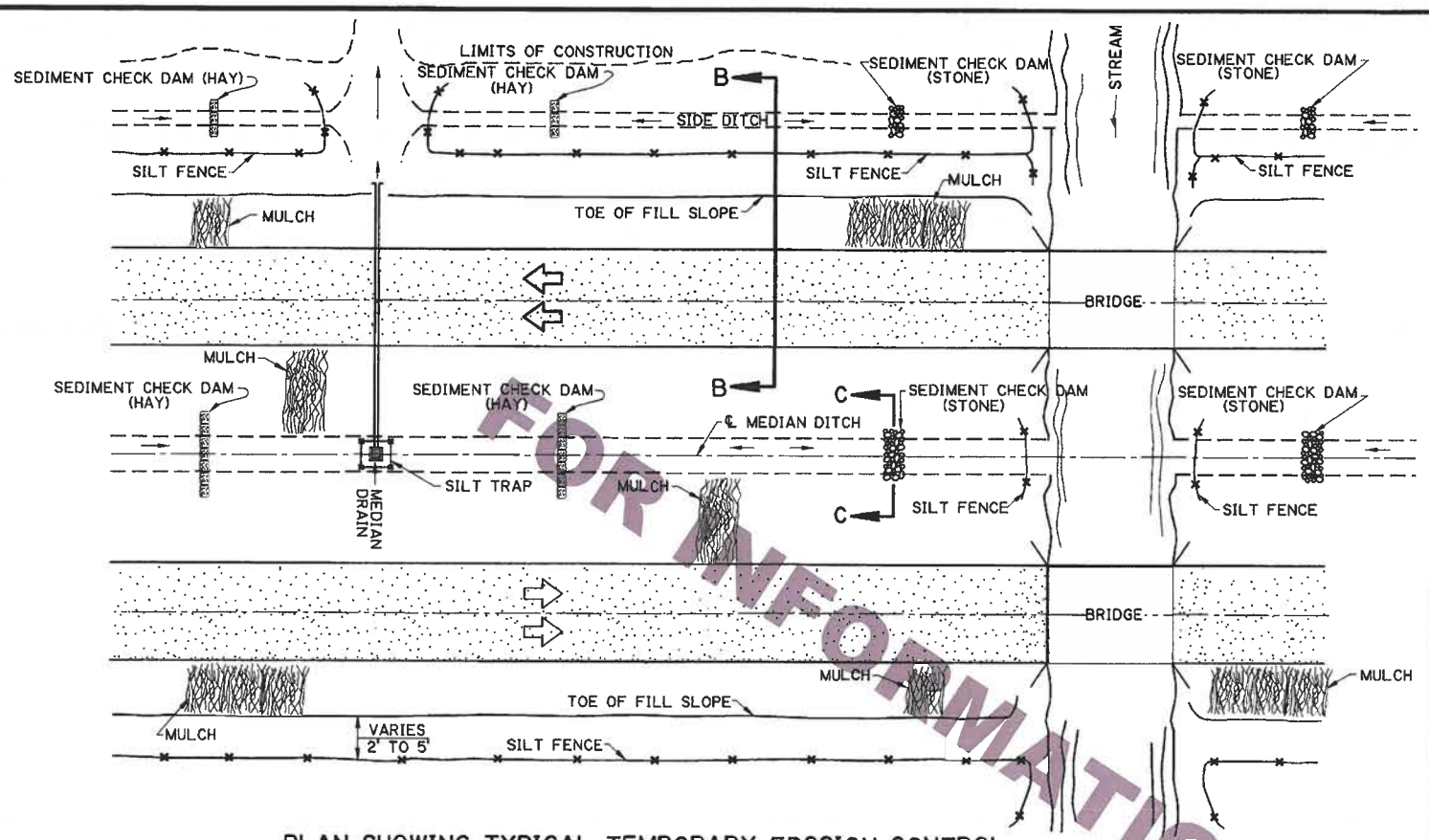
REVISION OR CHANGE ORDER DESCRIPTION. BY DATE: 7/2/18

No.	DATE	APPROVED BY CHIEF ENGINEER

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

TEMPORARY TRAFFIC CONTROL
FOR LANE CLOSURES ON
DIVIDED HIGHWAYS
(Does not include ramp entrance or exit tapers)
TTC-09

DOTD TRAFFIC ENGINEERING

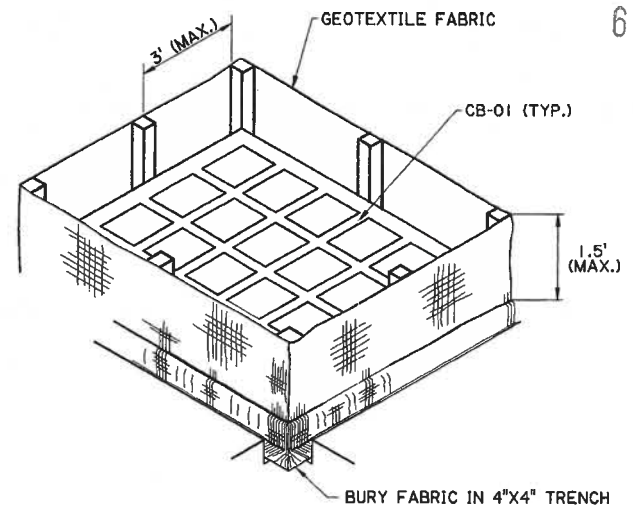


PLAN SHOWING TYPICAL TEMPORARY EROSION CONTROL

MULCHES

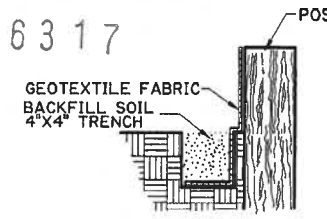
MULCHES ARE THE APPLICATION OF MATS OF MATERIAL PLACED ON THE SOIL SURFACE TO PREVENT EROSION BY PROTECTING THE SOIL SURFACE FROM RAINDROP IMPACT AND TO REDUCE THE VELOCITY OF OVERLAND FLOW. MULCHES CAN BE ORGANIC OR SYNTHETIC. MULCHES SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS FOR TEMPORARY EROSION CONTROL. A FEW GUIDELINES FOR THE USE OF MULCHES ARE:

1. USE ON CUT AND EMBANKMENT SLOPES WHICH HAVE NOT BEEN COMPLETED TO PLAN GRADE OR WHERE THE WEATHER OR SOIL CONDITIONS WILL NOT PERMIT COMPLETING THEM WITHIN A REASONABLE TIME
2. USE ON CLEARED, GRUBBED , AND SCALPED AREAS WHERE SOIL EROSION IS LIKELY TO occur
3. USE WITH TEMPORARY SEEDING

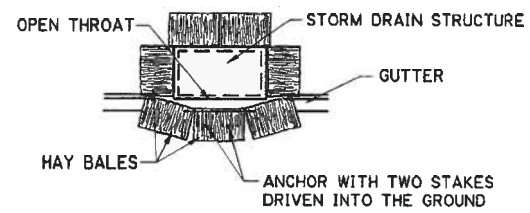


ISOMETRIC VIEW SHOWING GEOTEXTILE FABRIC

(BACKFILL SOIL NOT SHOWN)



SECTION THRU TRENCH SHOWING GEOTEXTILE FABRIC



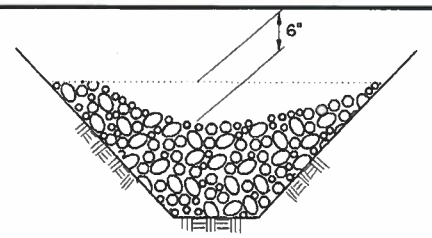
PLAN SHOWING HAY BALES

PAY ITEM: TEMPORARY HAY OR STRAW BALES

TEMPORARY INLET SILT TRAP

THE TEMPORARY DROP INLET SILT TRAP IS TO BE USED FOR SMALL DRAINAGE AREAS (LESS THAN 1 ACRE) WHERE THE STORM DRAIN IS FUNCTIONAL BEFORE THE AREA IS STABILIZED. THE TRAP CAN BE EITHER GEOTEXTILE FABRIC OR HAY BALES.

1. THE GEOTEXTILE FABRIC SHALL CONFORM TO PROJECT SPECIFICATIONS FOR GEOTEXTILE FABRIC (CLASS G).
2. WOODEN STAKES SUPPORTING THE FABRIC SHALL BE 2" X 2" OR 2" X 4" WITH A MINIMUM LENGTH OF 3 FEET. THE STAKES SHALL BE SPACED AROUND THE INLET AT A MAXIMUM SPACING OF 3 FEET.
3. THE HEIGHT OF THE FABRIC ABOVE THE INLET SHALL BE LIMITED TO 1.5' AND THE BOTTOM OF THE FABRIC SHALL BE BURIED IN A TRENCH APPROXIMATELY 4" WIDE BY 4" DEEP. THE FABRIC SHALL BE STAPLED TO THE POST WITH ½" STAPLES.
4. THE TRAP SHOULD BE INSPECTED REGULARLY AND AFTER EACH STORM. THE SEDIMENT SHOULD BE REMOVED AND EACH STAKE SHOULD BE FIRMLY IN THE GROUND.
5. HAY BALES SHALL BE PLACED SO THAT THE BINDING WIRE OR TWINE IS NOT IN CONTACT WITH THE GROUND.



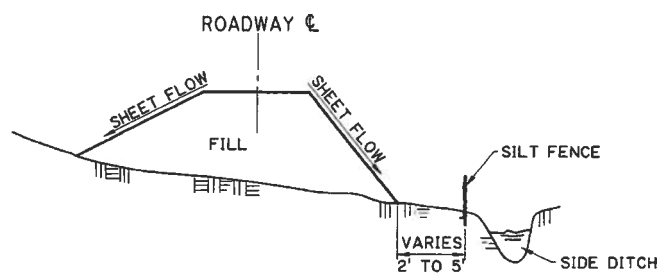
SECTION C-C

TEMPORARY SEDIMENT CHECK DAM (STONE)

PAY ITEM: TEMPORARY SEDIMENT CHECK DAM (STONE)

NOTES:
A STONE CHECK DAM IS A SMALL TEMPORARY DAM CONSTRUCTED ACROSS A SWALE OR DRAINAGE DITCH. THE PURPOSE OF THIS MEASURE IS TO REDUCE THE VELOCITY OF CONCENTRATED STORM WATER FLOWS, THEREBY REDUCING EROSION OF THE SWALE OR DITCH. THE STONE CHECK DAM WILL TRAP SMALL AMOUNTS OF SEDIMENTS GENERATED IN THE DITCH ITSELF, HOWEVER IT SHOULD NOT BE USED AS A SEDIMENT TRAPPING DEVICE. A FEW BASIC DESIGN GUIDELINES FOR THE USE OF STONE CHECK DAMS ARE:

1. USE IN SMALL OPEN CHANNELS WHICH DRAIN 10 ACRES OR LESS
2. DO NOT USE IN A LIVE STREAM
3. USE IN A TEMPORARY DITCH OR SWALE WHICH, BECAUSE OF THEIR SHORT LENGTH OF SERVICE, CANNOT RECEIVE A NON- ERODIBLE LINING
4. USE IN PERMANENT DITCHES OR SWALES WHICH WILL NOT RECEIVE A PERMANENT LINING FOR AN EXTENDED PERIOD OF TIME
5. USE IN TEMPORARY OR PERMANENT DITCHES OR SWALES WHICH NEED PROTECTION DURING THE ESTABLISHMENT OF GRASS LININGS
6. FOR STONE SPECIFICATIONS, SEE PROJECT SPECIFICATIONS FOR RIPRAP, (CLASS 2 LB)



SECTION B-B

TEMPORARY SILT FENCE APPLICATION

(FOR CONSTRUCTION DETAILS AND SPECIFICATIONS SEE SHEET 2 OF 2.)

POINTS A SHOULD BE HIGHER THAN POINT B.

ELEVATION

SECTION A-A

TEMPORARY SEDIMENT CHECK DAM (HAY)

PAY ITEM: TEMPORARY SEDIMENT CHECK DAM (HAY)

NOTES:
A HAY BALE BARRIER IS A TEMPORARY SEDIMENT BARRIER CONSISTING OF A ROW OF ENTRENCHED AND ANCHORED BALES OF STRAW OR HAY. THE HAY BALE BARRIER IS ALSO USED AS A CHECK DAM TO REDUCE THE VELOCITY IN SMALL DITCHES OR SWALES. THE HAY BALES SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS FOR TEMPORARY EROSION CONTROL.
A FEW BASIC DESIGN GUIDELINES FOR THE USE OF A HAY BALE BARRIER ARE:

1. USE WHERE EROSION WOULD OCCUR IN THE FORM OF SHEET AND RILL EROSION
2. USE IN MINOR SWALES OR DITCHES WHERE THE MAXIMUM DRAINAGE AREA IS 2 ACRES
3. ONLY USE WHERE THE EFFECTIVENESS IS REQUIRED FOR LESS THAN 3 MONTHS
4. DO NOT USE IN LIVE STREAMS OR IN SWALES OR DITCHES WHERE THERE IS A POSSIBILITY OF A WASHOUT

SHEET NUMBER

PARISH | FEDERAL PROJECT | STATE PROJECT

DESIGNED JCM | DETAILED KAJ | DATE 1-14-94
CHECKED | CHECKED JCM | SHEET 1 OF 2

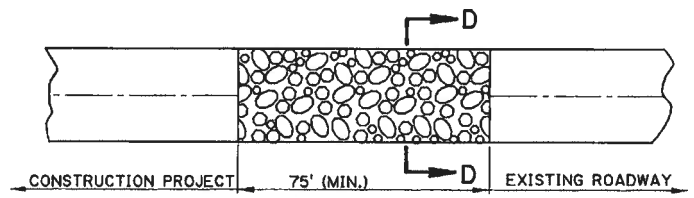
BY	DATE	REVISION DESCRIPTION
MH	10-1-08	REMOVE SPECIFIC PAY ITEM NOS., GENERAL REVISIONS

APPROVED BY CHIEF ENGINEER: [signature] DATE 10-1-08

TEMPORARY EROSION CONTROL DETAILS

STANDARD PLAN EC-01

HYDRAULICS SECTION



PLAN

SECTION D-D

TEMPORARY STONE CONSTRUCTION ENTRANCE

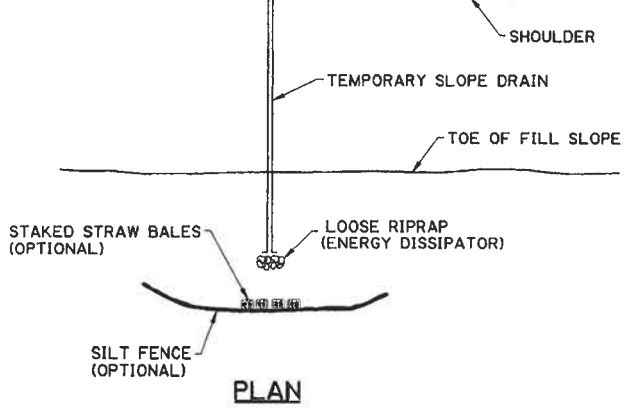
PAY ITEM: TEMPORARY STONE CONSTRUCTION ENTRANCE

NOTES:

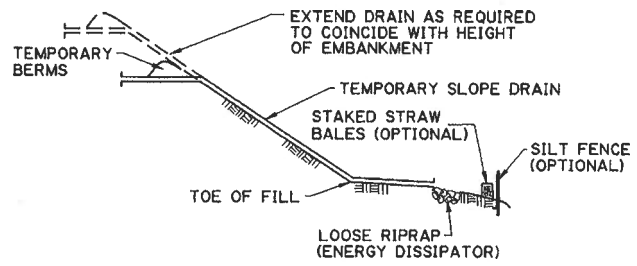
TEMPORARY STONE CONSTRUCTION ENTRANCE AND/OR WASH RACK

A STONE STABILIZED PAD LOCATED AT POINTS OF VEHICULAR INGRESS AND EGRESS ON THE CONSTRUCTION SITE TO REDUCE THE AMOUNT OF MUD TRANSPORTED ONTO PUBLIC ROADS. IF THE ACTION OF THE VEHICLE TRAVELING OVER THE GRAVEL PAD IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF THE MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLE ENTERS A PUBLIC ROAD. A FEW BASIC DESIGN GUIDELINES FOR THE USE OF A STONE ENTRANCE AND/OR WASH RACKS ARE:

1. THE STONE LAYER MUST BE AT LEAST 6 INCHES THICK.
2. THE STONE SHALL CONFORM TO PROJECT SPECIFICATIONS FOR RIPRAP (CLASS 2 LB).
3. THE LENGTH OF THE PAD MUST BE A LEAST 75 FEET AND IT MUST EXTEND THE FULL WIDTH OF THE VEHICULAR INGRESS AND EGRESS.
4. A GEOTEXTILE FABRIC UNDERLINER IS REQUIRED. THE GEOTEXTILE FABRIC SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS FOR GEOTEXTILE FABRIC (CLASS D).
5. IF A WASH RACK IS NECESSARY, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF-SITE.



PLAN



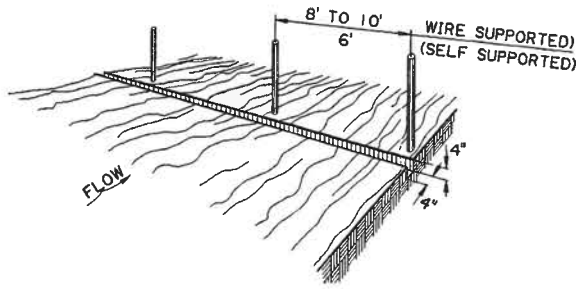
ELEVATION

TEMPORARY SLOPE DRAIN

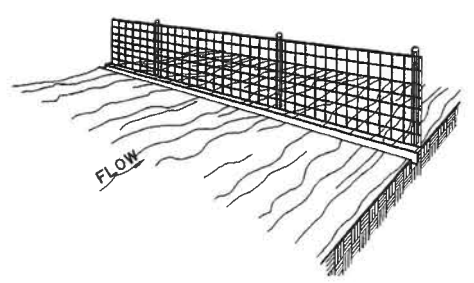
A TEMPORARY SLOPE DRAIN IS A DEVICE USED TO CARRY WATER FROM THE CONSTRUCTION WORK AREA TO A LOWER ELEVATION. SLOPE DRAINS MAY BE PLASTIC SHEET, METAL OR PLASTIC PIPE, STONE GUTTERS, FIBER MATS, OR CONCRETE OR ASPHALT DITCHES. A FEW BASIC DESIGN GUIDELINES FOR THE USE OF A TEMPORARY SLOPE DRAIN ARE:

1. THE SPACING OF THE SLOPE DRAINS VARIES WITH THE ROAD GRADE.
   FOR GRADES: 0.0% - 2.0% USE 500' SPACING
   2.1% - 5.0% USE 200' SPACING
   GREATER THAN 5.0% USE 100' SPACING
2. SLOPE DRAIN MATERIAL: SMOOTH PIPE - 8" MINIMUM - 3 MILS THICK MIN.
   CORRUGATED PIPE - 12" MINIMUM
   PLASTIC SHEETING - 4' WIDE MINIMUM
   PLASTIC SHEETING - 3 MILS THICK MIN.
3. PLASTIC SHEETING CAN BE STAKED DOWN OR WEIGHTED WITH ROCKS OR LOGS. THE AREA UNDER THE SHEETING SHOULD BE SHAPED TO PROVIDE AN ADEQUATE CHANNEL.
4. THE OUTLET END SHOULD BE PROTECTED OR HAVE SOME MEANS OF DISSIPATING ENERGY. THE FLOW SHOULD BE DIRECTED THROUGH A SEDIMENT TRAP SUCH AS A SILT FENCE, HAY BALES, OR OTHER APPROVED SEDIMENT CONTROL DEVICES.
5. TO INSURE PROPER OPERATION, TEMPORARY SLOPE DRAINS SHOULD BE INSPECTED REGULARLY AND AFTER EACH STORM, FOR CLOGGING OR DISPLACEMENT. EROSION AT THE OUTLET SHOULD BE CHECKED AND THE SILT TRAPS CLEANED IF NECESSARY.

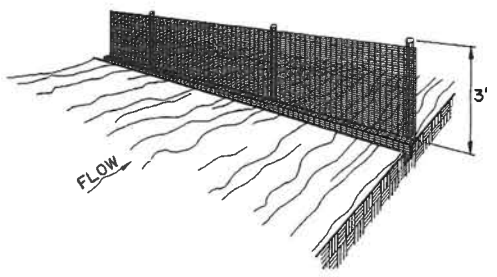
1. SET POSTS AND EXCAVATE A 4" X 4" TRENCH UPSLOPE ALONG THE LINE OF POSTS.



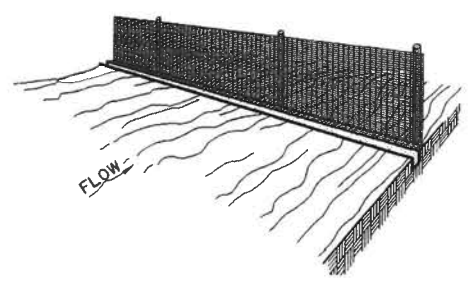
2. STAPLE WIRE FENCING TO THE POSTS.



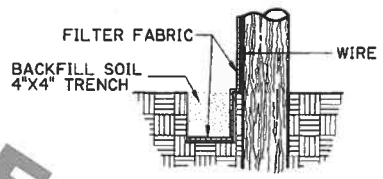
3. ATTACH THE FILTER FABRIC TO THE WIRE FENCE AND EXTEND IT INTO THE TRENCH.



4. BACKFILL AND COMPACT EXCAVATED SOIL.



EXTENSION OF FABRIC INTO THE TRENCH.



CONSTRUCTION OF TEMPORARY SILT FENCING

(WIRE SUPPORTED SILT FENCE IS SHOWN. SELF SUPPORTED SILT FENCE WILL BE CONSTRUCTED ACCORDING TO MANUFACTURERS SPECIFICATIONS.)

NOTES:

SILT FENCING IS A TEMPORARY SEDIMENT BARRIER CONSISTING OF A FILTER FABRIC SUPPORTED BY POSTS AND STRETCHED ACROSS AN AREA TO INTERCEPT AND DETAIN SMALL AMOUNTS OF SEDIMENT. THE SILT FENCING SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS FOR TEMPORARY EROSION CONTROL. A FEW BASIC GUIDELINES FOR THE USE OF SILT FENCING ARE:

1. USE WHERE EROSION WOULD OCCUR IN THE FORM OF SHEET AND RILL EROSION
2. USE WHERE THE MAXIMUM DRAINAGE AREA BEHIND THE SILT FENCE IS ¼ ACRE PER 100 FEET OF SILT FENCE LENGTH
3. USE WHERE THE MAXIMUM SLOPE LENGTH BEHIND THE BARRIER IS 100 FEET
4. USE THERE THE MAXIMUM GRADIENT BEHIND THE BARRIER IS 2:1
5. DO NOT USE SILT FENCES IN LIVE STREAMS OR IN DITCHES OR SWALES WHERE FLOWS EXCEED ONE CUBIC FOOT PER SECOND

SHEET NUMBER

PARISH	FEDERAL PROJECT	STATE PROJECT
DESIGNED JCM	DETAILED KAJ	DATE 1-14-94
CHECKED	CHECKED JCM	SHEET 2 OF 2

NO.	REVISION DESCRIPTION	BY	DATE
1	REMOVE SPECIFIC PAY ITEM NOS., GENERAL REVISIONS	MH	10-1-08

APPROVED BY CHIEF ENGINEER: Wilbert Temple DATE 10.1.08

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

TEMPORARY EROSION CONTROL DETAILS

STANDARD PLAN EC-01

HYDRAULICS SECTION